

Gel Doc™ EZ System

Catalog #170-8270

Specifications for Reference Use in Sole-Source Justifications

Bio-Rad Laboratories, Inc. is the original manufacturer and sole supplier of the Gel Doc EZ System.

The following feature set is unique to the Gel Doc EZ system and is not available in competing systems.

Feature	Benefit
Gel Doc EZ System Hardware	
Image resolution >4 megapixels	• High resolution imaging for resolving closely spaced bands on a gel or blot.
4.6 x 4.6 µm pixel size	• Quantitative (>3.0 orders of linear dynamic range) for all samples
Requires no camera adjustments for image acquisition	• Provides excellent image quality by eliminating user-introduced errors. User does not have to zoom, focus, adjust aperture or select light source, eliminating user error and leading to higher image quality
Provides modularity with four sample trays: UV for trans-UV illumination White for trans-white illumination Blue for trans-blue illumination Stain-Free for Bio-Rad stain-free gels and blots	• Provides flexibility to image a wide variety of applications, including nucleic acid and protein detection via colorimetric and fluorescent stains
Sample trays are customizable per user and recognized automatically	• Facilitates multi-user and multi-lab instruments • One button provided on the front panel of the instrument triggers user-specific default protocols that automate image acquisition and analysis
Only one emission filter is needed to accommodate a large portfolio of detection methods	• Only one filter for all applications, reducing user-introduced errors, while maximizing image quality. The Gel Doc EZ system can be used for a large portfolio of detection methods: ethidium bromide, SYBR® Green, SYBR® Safe, SYBR® Gold, GelGreen, GelRed, Fast Blast™, SYPRO Ruby, Flamingo™, Oriole™, CY3, rhodamine, green fluorescent protein, Hoechst, Krypton, silver stain, copper stain, zinc stain, Coomassie Brilliant Blue, Coomassie Fluor Orange, and other spectrally similar stains, labels, and dyes
Compact size/footprint (W x L x H): 27 x 44 x 38 cm; Weight: 9 kg (20 lb)	• Frees up benchspace. Enables users to position system next to electrophoresis apparatus
Stain-free technology with the use of Stain-Free sample tray	• Unparalleled time savings, Stain-free technology condenses traditional 2–18 hr Coomassie protocol into 5 min by eliminating the staining and destaining steps with equal or better sensitivity, increased reproducibility, and reduced organic waste
Gel Doc EZ System Installation	
Easy wizard-driven installation with a single USB connection	• Allows users to easily install system to a PC or Mac in <5 min
The one-time installation process installs the sample trays and includes lens flat-fielding calibration for each sample tray	• This feature allows for easy user installation of trays and accounts for uniformity and illumination that are inherent in any imager • Delivers image data that are always optimized and reproducible without imaging artifacts, providing superior image uniformity and quantitation
Gel Doc EZ System Software	
Powered by Image Lab™ 3.0 software	• Enables the highest level of automation in hardware calibration, image optimization, capture, and analysis
Image Resolution >4 MP	• Provides increased image resolution when images are cropped or zoomed • Allows users to have smooth, clean images at any zoom level
Automated workflow recorded in a protocol file from image capture to results	• Allows recreation, exchange, and editing of existing workflows among multiple users. Eliminates need for training • Allows 100% repeatability of the workflow by any user and ensures optimized image data and analysis from a gel in a single uninterrupted, fast, and completely reproducible workflow • Combines automated gel imaging and analysis in a single software application
Automated image capture driven by a selected gel or blot application	• Ensures that image optimization is specific to a selected gel or blot application
One-button acquisition from image capture to results	• One push button provided on the front panel of the instrument triggers user-specific default protocols that automate image acquisition and analysis. User is defined by logging into the computer operating system • Allows 100% repeatability of the workflow by any user and ensures optimized image data and analysis from a gel in a single uninterrupted, fast, and completely reproducible workflow



Software is Mac- and PC-compatible and license registration is not required	<ul style="list-style-type: none"> Allows free functionality for sharing, analyzing, and presenting of gel data. Unlimited copies of Image Lab software are available with each system Allows use in multiple computers, providing flexibility in choosing location, media, and time for data analysis
Generates 16-bit and 8-bit tiff images with a one-click export option	<ul style="list-style-type: none"> Allows user to retain all image data as a 16-bit or 8-bit .tiff file. This option creates a larger file and enables the user to analyze the image in other software programs
Generates publication-ready images with a one-click export option	<ul style="list-style-type: none"> Specifies publishing resolution (dpi) and publishing dimension with a one-click image export for publication. Provides functionality to produce image at user-defined dpi and dimension Produces beautiful, publication-ready images. Selections range from .tiff, .bmp, .png, and .jpg formats Eliminates the need to first import image into software such as Photoshop image editing software to change image dpi and size
Generates customizable reports automatically	<ul style="list-style-type: none"> Produces customizable reports with data organized as desired, including lane and band identification, molecular weight or base pair evaluation. Band sizing and quantitation are based on a reference band or quantity standards
User-defined data charts with instant access to Excel functionality	<ul style="list-style-type: none"> Minimizes time from lab work to presentations Data analysis is enriched with Excel calculations within a single user interface Enables quick export of analysis and images to PowerPoint presentations or Excel files
Snapshot tool to copy images, lane profiles, and graphs	<ul style="list-style-type: none"> Allows instant copy/paste into publications and presentations within a single user interface
Clearly defined Image Lab software tools for acquisition and analysis	<ul style="list-style-type: none"> Provides large descriptive buttons with tool tips and comprehensive tutorial with navigation menu
Easily accessible targeted analysis features	<ul style="list-style-type: none"> Provides comprehensive 1-D gel and blot image analysis in the shortest possible time Offers live update of results with any change of analysis parameters Provides automatic and manual means for molecular weight determination, purity assessment, and relative and absolute quantitation
Automatic print	<ul style="list-style-type: none"> This feature is useful for users only interested in taking an image and printing it
Flexible lane and band detection tools	<ul style="list-style-type: none"> Image Lab software provides complete flexibility with automatic and manual detection of lanes and bands, using proprietary algorithms Lane finding tools include manual adjustment for all or individual lanes Band finding tools include manual adjustment for all or individual bands Band detection sensitivity is fully adjustable to select the best detection sensitivity for the sample
Multiple image optimization tools	<ul style="list-style-type: none"> Unlimited undo and redo functions are available to easily correct for any missteps Additional features are easy copy/paste functionality, crop, zoom, 3D, and colors

Technical Support

On-call imaging technical support supplied directly by 10-person team dedicated to U.S.

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