

GelDoc-It² and ChemiDoc-It²

Advanced Imaging Systems



**Modular Designs for Gel and Blot
Capture and Analysis**

Genomics and Proteomics Research

 **UVP**
An Analytik Jena Company



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Use the above details to contact us if this literature doesn't answer all your questions.

Pricing on any accessories shown can be found by keying the part number into the search box on our website.

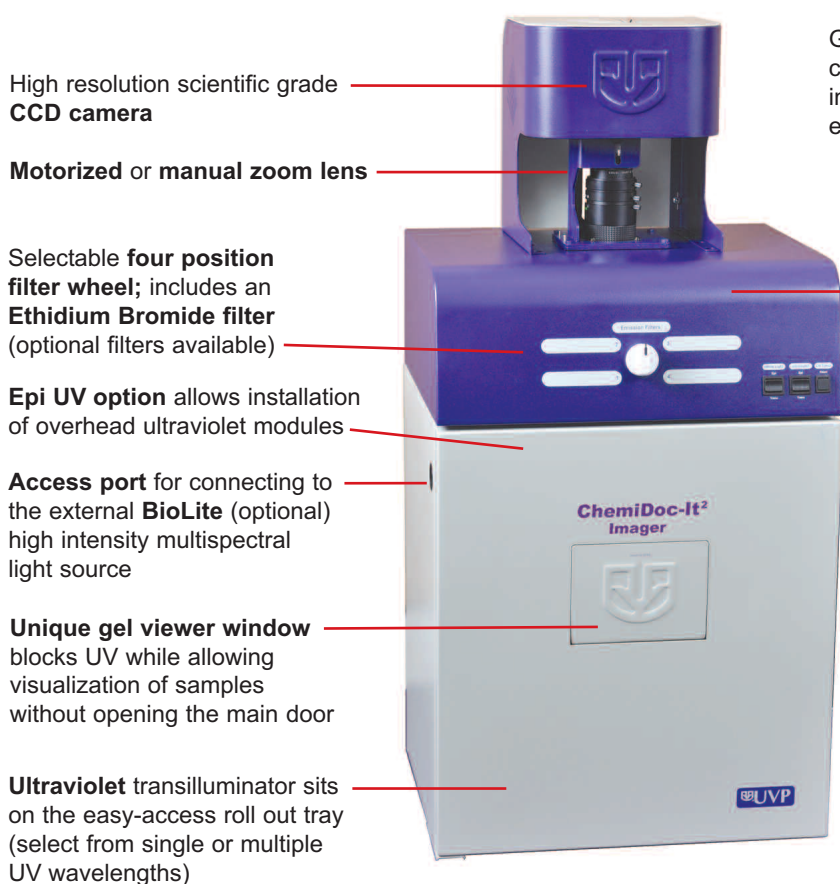
The specifications listed in this brochure are subject to change by the manufacturer and therefore cannot be guaranteed to be correct. If there are aspects of the specification that must be guaranteed, please provide these to our sales team so that details can be confirmed.



GelDoc-It² and ChemiDoc-It² Systems

Economical Advanced Imaging Designs

GelDoc-It² and ChemiDoc-It² Systems feature economical configurations used for a variety of imaging applications. These systems supply researchers with an easy to use design which simplifies the image capture workflow through the following features:



GelDoc-It² and ChemiDoc-It² Systems with separate computer and monitor allow users to capture quality images and perform quantitative analysis, image enhancements and generate reports at one location.

White light sources include epi white light and optional **LED** white light plate for illumination of Instant Blue, Silver and Coomassie Blue

Darkroom power controls are conveniently located

Computer required (order separately)



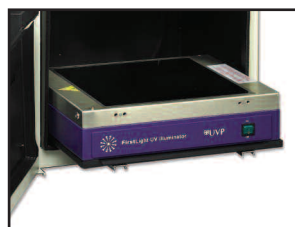
VisionWorks[®]LS Software allows image acquisition, enhancement, analysis, documentation, printing and publishing of gels, blots, plates and colonies



Chemi Tray provided with the ChemiDoc-It² allows placement of chemi blots (Westerns, Northern and Southern). No film required for chemiluminescent imaging.



Emission Filter Names can be marked on the the darkroom. Add filters as required for specific applications. Easily dial to the required filter.

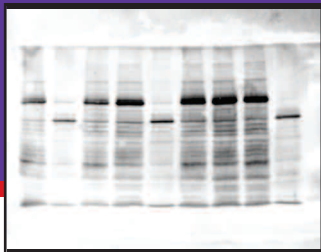


Transilluminator Tray easily pulls out for access to the transilluminator. The door swings wide for easy entry to the darkroom interior.

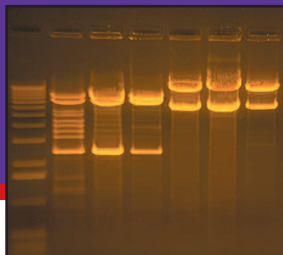


Side Pocket allows placement of optional **LED** white plate or converter plates.

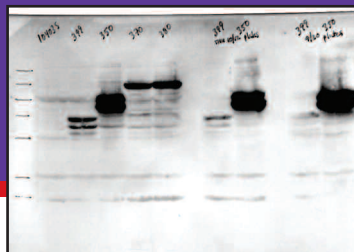
Chemi Western Blot



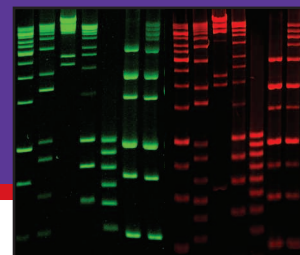
Ethidium Bromide



Autoradiograph



GelGreen/GelRed



Select a ChemiDoc-It² or GelDoc-It² Imaging System depending on your application requirements. UVP configures systems with the components you need to maximize your research results!

GelDoc-It² Imager

Dedicated Design for Rapid Gel Imaging and Analysis

For gel imaging applications, select the GelDoc-It² Imaging System. This economical gel imager uses a high resolution GelCam 310 CCD camera that captures picture perfect images of DNA gels.

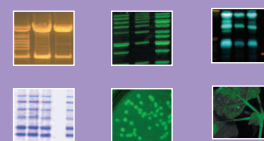
The modular design allows addition of system components as needed for applications including colorimetric protein stains (Coomassie Blue, Instant blue and Silver) as well as blue light stains (including GelGreen and SYBR Green). Refer to the components page for accessories.

The GelDoc-It² connects to a computer loaded with VisionWorksLS capture and analysis software. Once images are captured, the images can be analyzed or annotated for publication. Images can easily be transferred to a separate computer via network connectivity.

GelCam 310 Camera

2.0 megapixel resolution
scientific grade CCD, extendable to 6.0MP, provides the highest resolution camera for general purpose fluorescent and colorimetric samples

GelDoc-It² Applications*



ChemiDoc-It² Imager

High Sensitivity, High Resolution Capture for Gel and Blot Imaging and Analysis

For imaging of chemiluminescent blots such as Westerns, Northern and Southern as well as fluorescent DNA gels, select the ChemiDoc-It² System. This imager is configured with a choice of high sensitivity cooled CCD cameras which are designed specifically for these imaging applications. Refer to the camera chart below for selection of cameras.

The ChemiDoc-It² also offers a modular design which allows addition of optional system components as needed for applications including colorimetric and blue light stains.

For applications such as plant imaging and fluorescent Westerns, a BioLite MultiSpectral Light Source can be added to the ChemiDoc-It² system. The BioLite supplies bright illumination for excitation of stains including GFP and CY.

The VisionWorksLS software loads on your computer for control of image capture. Once images are captured, the images can be analyzed or annotated for publication. Images can easily be transferred to a separate computer via a network connection.

MegaCam 810 Camera

8.1 megapixel resolution
scientific grade CCD, extendable to 16.2MP, with regulated cooling technology to capture the finest details in gels and blots and generate accurate quantitative analysis results

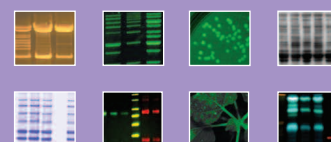
OptiChemi 610 Camera

3.2 megapixels resolution
scientific grade CCD, extendable to 9.6MP, deeply cooled for extended exposure times in IR/NIR multiplex and chemiluminescent imaging

BioChemi 510 Camera

2.1 megapixel resolution
scientific grade CCD, extendable to 7.4MP*, with regulated cooling and low noise for imaging a variety of chemiluminescent and fluorescent samples

ChemiDoc-It² Applications*



VisionWorksLS Software

VisionWorksLS is a powerful software package designed with comprehensive tools to facilitate the capture and analysis of publication quality images. Software capabilities include:

- Image acquisition controls
- Image enhancement functions
- 1D quantitation, area density analysis and colony counting
- User defined master templates for selecting and saving settings for repeat experiments
- Report generation and export of data to Excel
- Support for 21 CFR Part 11 compliance

Image Capture Capabilities

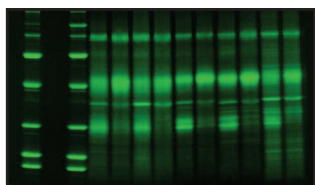
The software menu enables easy selection of a variety of functions to achieve superior captured images.

- **Integration** functions include on-chip integration for single image capture. Sequential integration captures multiple pictures taken at increasing exposure times. Dynamic integration captures images at set intervals.
- **Binning** allows a quick image preview and fast capture of high resolution images.
- **AutoExpose** enables the perfect image exposure of gels to be captured automatically below the saturation level of each pixel in the image for the widest dynamic range possible and the best quantitative analysis of bands.

Image Enhancement Tools

The software offers many non-destructive process filters, enhancement features and annotation tools that can be applied to images for visualization and publication.

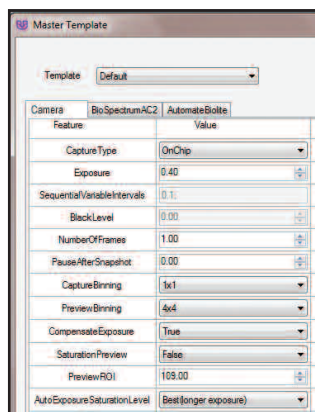
- **Annotations tools** include text, lines and highlights
- **Filter tools** include align, rotate, emboss, sharpen, resize and background correction



Preferences and Templates

Researchers can personalize workspace preferences and save profiles by user name. Also, user accounts can easily be set up with passwords to save and protect user data.

Master templates are great time savers and allow users to set and save darkroom and camera settings for quick, easy capture of samples.

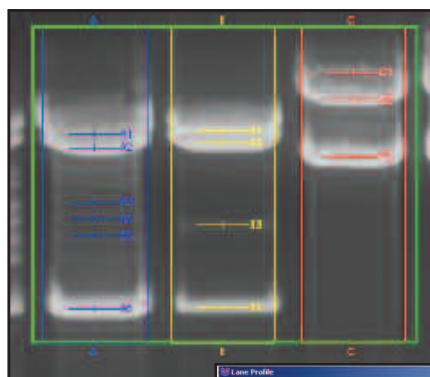


Area Density Use the Area Density function to determine intensity information for bands.

Extensive Analysis Capabilities

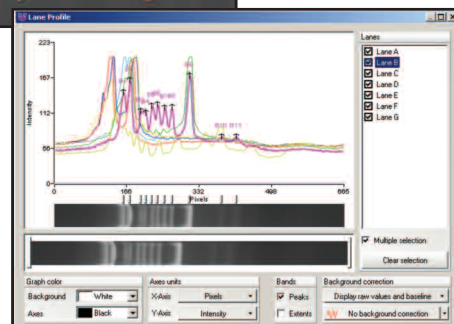
The VisionWorksLS analysis package provides complete tools for quantitative analysis. Easy to use functions automate research to:

- Automatically find lanes and bands
- Generate lane profile graphs
- Visualize area density for bands
- Perform dendrogram analysis
- Calculate concentration curves
- Count colonies



Find Lanes and Bands Use the 1D Analysis function to automatically find and label lanes and bands. Easily adjust the parameters.

Lane Profile Graph Use the 1D Analysis Lane Profile Graph to generate graphical representation of lanes and bands data.



Reports and History Tracking

- Create reports showing extensive analysis results including Molecular Weight (MW), Rf, band intensities and area density calculations. Export data to Excel.
- Software image history tracking, with change logs, supports 21 CFR Part 11 compliance.

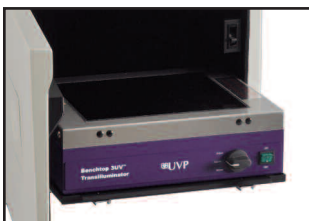
IQ/OQ Documentation

Installation Qualification (IQ) and Operational Qualification (OQ) documents are available. Contact UVP for details.

Modular Design Components / Applications

The modular design of the **ChemiDoc-It²** and **GelDoc-It²** Imaging Systems enables users to select components and add optional equipment as necessary for specific imaging applications.

Choice of UV Transilluminator



Transilluminator models feature single (302nm), 2UV™ (302/365nm) or 3UV™ (254/302/365nm) UV wavelengths. Filter sizes of 20x20cm, 21x26cm or 25x26cm (select models).

UV Lamp Modules



Mount the optional **UV lamp modules** into the cabinet for epi UV illumination. The lamp modules can be removed for hand held use. Select from longwave (365nm), shortwave (254nm) or combination 254/365nm lamp modules.

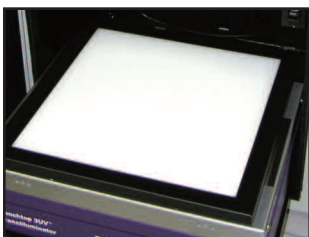
UV Modules (two recommended):

UVGL-25 UV Module (254/365nm)

UVL-21 UV Module (365nm)

UVG-11 UV Module (254nm)

LED White Light Plate and Converter Plates



The optional **LED White Light Plate** plugs into the cabinet and produces <5% coefficient of variance (CV) for viewing samples such as autoradiographs, Coomassie Blue and Silver Stains.

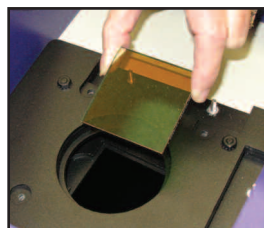
Converter Plates are also available: **White Light Plate** converts UV to white light and **Visi-Blue™ Plate** converts UV to 460-470nm blue light.

Computer and Monitor



Optional high specification computer and monitor can be ordered with the system. Ask about the all-in-one touch screen computer/monitor. Systems ordered with a computer and monitor will be preloaded with VisionWorksLS software at the UVP factory.

Emission Filters



The four-position **emission filter tray** is located under the camera/lens. An ethidium bromide (EtBr) filter is standard. Additional filters are available including SYBR Green and SYBR Gold/Safe. Contact UVP for filter information.

BioLite™ MultiSpectral Light Source



Optional **BioLite** supplies powerful directed epi illumination or transillumination via fiber optic cable into the darkroom. Choose Halogen or Xenon lighting. A wide range of filters are available to provide specific wavelengths from visible to NIR. Contact UVP for BioLite details and standard/custom filters.

Thermal Printer



Generate archive quality, 256 gray scale prints with this compact thermal printer. Glossy and matte papers are available.

Gel Tools are excellent devices for researchers working with gels. Tools available include Gel-Cutter, Gel-Scooper, Gel-Ruler and Gel-Trays.

Application Codes*



DNA Gels



Protein Gels



Blue Light Gels



Multiplex



Chemiluminescent Blots



TLC Gels



Colony Plates



Plants

* Applications listed may require additional accessories.



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