A Studio to Capture All Your Imaging Needs
UVP ChemStudio Imaging Systems

UVP ChemStudio

level
Discovering
new boundaries

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UVP ChemStudio Imaging Systems

A studio for every imaging need you can imagine.

The creators behind the UVP ChemStudio imaging systems are known for delivering advanced solutions for genomic and proteomic applications. UVP ChemStudio imagers offer high-resolution and sensitive imaging: of western blots, fluorescent westerns, protein blots, DNA gels, protein gels, blue light gels, colony plates, and plants. They also work with an unlimited range of excitable stains and dyes.

All imagers run with the powerful VisionWorks® Software, full package image capture, enhancement functions, and analysis software. Application-based icons for automation, which are included in the software package, offer the possibility of one-touch capture. The software allows for creating custom icons and workflows based on users' needs.

The UVP ChemStudio guarantees top image quality and an optimized range of high performance features. Whether a basic model or the most advanced, every platform offers flexible modules for light sources, camera, and optics. With its high-resolution cameras, deep ambient-temperature cooling, high dynamics, and excitation ranges from 250 to 800 nm, this series introduces a new benchmark that goes far beyond publication-quality images.

UVP ChemStudio/
UVP ChemStudio *touch*

A Studio to Capture All Your Imaging Needs

Image quality is the top priority

- **Performance:** Images of the highest quality, with an 8 MP camera, deep cooling, and efficient photon-to-signal conversion.
- **Sensitive:** Wide-aperture lens optics capture more light in low-light applications. Signals come faster and are stronger.
- **Customized:** User-controlled image enhancement tools to optimize images, binning, display control, background substraction, inversion, dark frame correction, noise removal, and many more functions.

Unlimited application capabilities

- **Versatile:** Ideal for imaging and documentation of gels, western blots, colorimetry, fluorescent westerns, colony plates, plants, IR dyes, and a wide range of fluorescent dyes. Excitation in a range of 250–800 nm.
- **Modular:** Modules for multiplexing with the option of upgrades that can be carried out in the field.
- **Free Choice:** Various UV wavelengths or blue LED transilluminator. Wide range of camera options to match needs of specific applications, from cost-saving to high-performance options, and with high resolution and powerful dynamics.
- **Flexible:** Application-based icons for commonly used applications provide one-touch capture. Templates and macros for creating custom one-touch workflows.

Data integrity

- **Powerful:** Numerous features for image enhancement and data analysis.
- **Uncompromised:** Unmodified raw data. Users have the choice of applying image enhancement tools.
- **Reproducible:** Calculation of accurate concentration results, including calibration standard.

Designed by researchers for researchers

- **Compact:** Small footprint and compact form maximize the use of laboratory bench space.
- **Unrivaled:** Integrated touch-screen computer.
- **Extensive:** A wide illuminated imaging area for simultaneous imaging of multiple gels and blots.
- **Ergonomic:** Thin-Line Transilluminator in a slide-out tray for easy prep.
- **Safe:** UV protection shield protects those doing prep work over the transilluminator.
- **Pragmatic:** Fold-down door minimizes benchtop interferences.

Versatile for All Your Application Needs

Supports a wide range of applications: chemiluminescence and fluorescences from 250 to 800 nm.

Support of an unlimited range of applications
The UVP ChemStudio Systems are capable of imaging DNA gels, protein gels, blue/white gels, plants, colorimetric, and colony plates. The imagers can image all of these as well as chemiluminescent western blots, fluorescent western blots (UV/VIS from 250-800 nm), UV, and NIR. All imagers can be upgraded with various lighting options and accessories for expanded application capabilities. The UVP ChemStudio models are also available in a PC-controlled version for laboratories with specific computer or IT restrictions.

Application-based automation and powerful data analysis – all in one stand-alone package
The VisionWorks® Software represents a powerful platform. It features automated image capture, enhancement functions, and extended analysis tools – all in one package. This software works with both stand-alone and external computer versions of the Studio series imagers.

This unique ability expands the tools available right on the benchtop when using the stand-alone platform. For those users who prefer to perform analysis on an external computer, all imagers include unlimited copies of the software for external use. Laboratory workflows are easy to automate; application-based icons are included for commonly used experiments. Customized application icons can be created, and for total workflow solutions, macros features facilitate one-touch workflows.

Expand your range of applications with modular lighting options
With the addition of accessories and lighting filters, the UVP ChemStudio series imagers expand to perform an even wider range of applications. Overhead white, green, red and blue LEDs come as standard in the series.
Furthermore, overhead LED modules are available that can be upgraded in the field. These allow for a range of multiplex lighting for IR1, and IR2. UVP Visi-White™ LED Plates can be easily plugged in for Coomassie blue, silver stains, and other trans white-light applications.

Revolutionary Thin-Line Transilluminator
All imagers are available as a package including a
302 nm, UV Thin-Line Transilluminator or a UVP Visi-Blue™
LED Transilluminator. The UV Thin-Line Transilluminator
uses innovative long-life UV tubes, which practically
eliminates service requirements. Instant-on functionality
reduces warm-up time to almost zero.

Optional a UVP Visi-Blue™ LED Transilluminator is available.
It additionally supports blue excitation applications, including
GelGreen™ and SYBR® Green (460–470 nm). A blue LED
transilluminator represents a safe option for your lab with no
risk of DNA damage or photo-nicking. It is also useful when
DNA samples must be used for additional procedures that
are performed after the imaging workflow. As an economical
alternative to blue-light applications, a UVP Visi-Blue™
Converter Plate can be used to convert UV to blue.

With the help of a UVP eLITE Light Source, uses a Xenon
light engine technology, uniform and high-intensity light
across the full range of brilliant multispectral excitation for a
variety of fluorescent dyes can be produced.

A New Standard for Image Quality and Data Integrity

High performance gets the best results - guaranteed excellent image resolution, sensitivity, and data integrity.

High resolution
The UVP ChemStudio includes the high-performance 8 MP chemi imaging camera. Multiple hardware and lighting options are configurable with the UVP ChemStudio Imaging Systems.

Extreme light sensitivity
A range of different cameras are available for applications requiring maximum light sensitivity, a wider dynamic range, or supreme quantum efficiency into the IR range. All cameras utilize a wide aperture.

Clean images
Cameras are deeply cooled to deliver clean images with no noise and a low background. Additionally, UVP ChemStudios provide user-controlled software tools to apply background subtraction and noise removal.

Data integrity is essential for accurate and reproducible results. The VisionWorks® Software tools provide users with the freedom to apply image enhancement and analysis features when needed. They create uncompromised raw data and preserve the true data, promising the highest quantitative value. The UVP ChemStudio series imagers are designed with an uncompromising focus on high-quality imagery, so they can bring the most value to your research.

An Enhanced Benchtop Experience

Compact design, small footprint, a large integrated touch-screen computer and several ergonomic features – the UVP ChemStudio design maximizes space and user comfort.

The UVP ChemStudio series provides a seamless, efficient imaging experience
An integrated 13.3-inch, wide touch-screen computer allows for the clear visualization of the faint bands and the fine details of images. Users multitask more easily on a wide screen as they flip between open windows and files. Large and visible icons on the software interface increase accessibility for an improved and simple workflow. Additionally, the computer offers 500 GB of hardware capacity for storing many images, application presets, and data. The several USB ports make it possible to attach a keyboard, mouse, and other accessories. A stylus is included for simple and precise touch-screen control.

Designed for ease of use and convenience
With a small footprint and fold-down door, it maximizes the use of the limited laboratory bench space and removes benchtop interferences. There when you need it for performing gel excision or procedures over the transilluminator surface, the low-profile transilluminator sits on a slide-out tray. All lighting and controls are software automated and are available at the fingertips. A software controlled five position filter wheel, in a slide-out tray, allows for simple changeover, to various emission wavelengths.

Protection from UV radiation is very important. Users are alerted to the presence of UV, with a red "UV On" indicator light, which shines brightly. A user defined, software controlled UV shut-off timer, turns off all UV light sources after a certain length of inactivity.

VisionWorks® Software

All versions of the UVP ChemStudio series imagers are operated by VisionWorks® software. This guarantees powerful capture, quantitating, and analysis.

Automation based on applications
Application-based template icons come preset and preloaded for commonly used experiments in chemiluminescence, fluorescence, and visible fluorescence.

One click to switch to picture or expert mode
The software lets users create custom one-click application icons so they can switch with ease from sample to picture mode or to full-control expert mode.
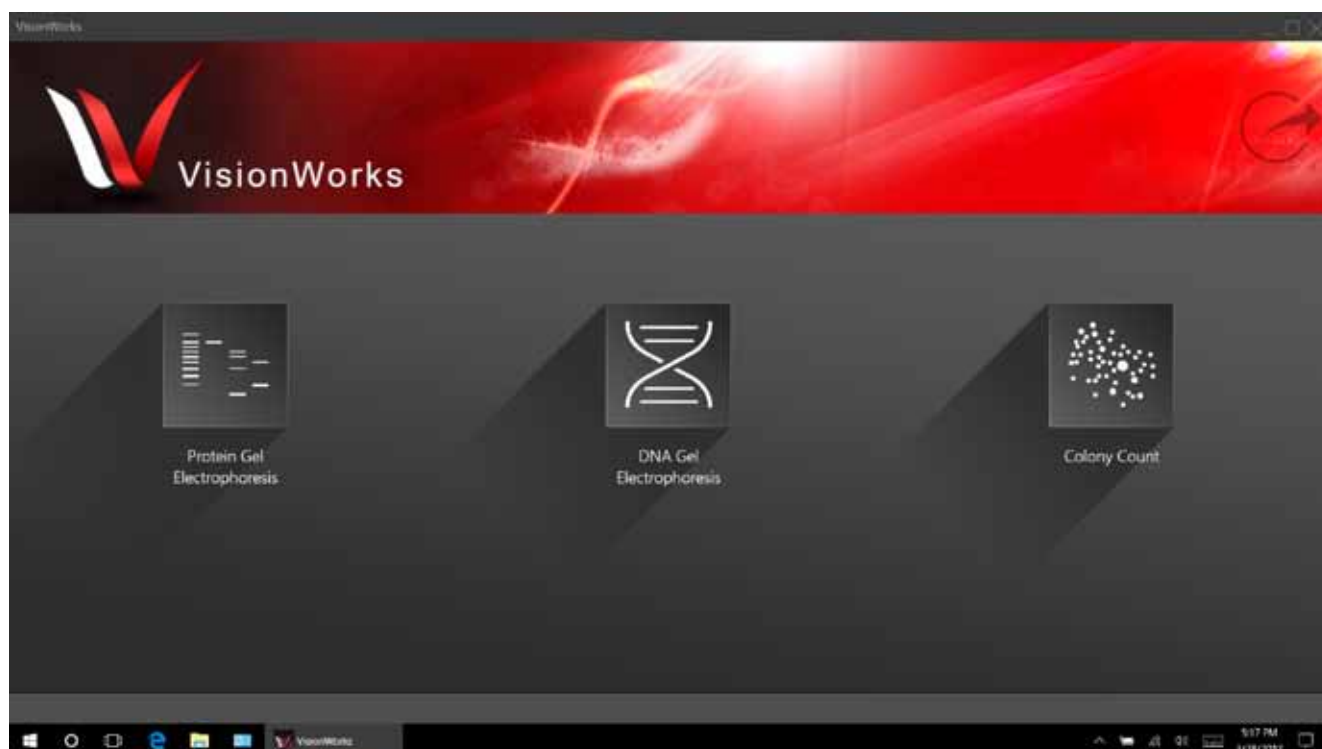
One-touch workflows for drastically improved laboratory efficiency
For more complex application workflows, macros are used to automate several workflow actions into one touch. Additionally, user accounts can easily be set up with passwords to save and protect user data.

Extensive image enhancement and analysis tools
Image enhancement and analysis features are included with all systems. Researchers can personalize their experiments, enhancement features, and annotation tools, e.g., for publication purposes. The software offers many powerful tools such as noise reduction, background subtraction, inversion, pseudocolor, compositing, and more.

Extended analysis features are optimized for accurate and reproducible results. Several custom tools are available, as well, such as finding lanes and bands, 1D analysis, area density, and colony counting. Once the quantitation results have been generated, reports are created to show extensive analysis results – such as Molecular Weight (MW), Rf, band intensities, and area density calculations. All data can be conveniently exported to Excel.
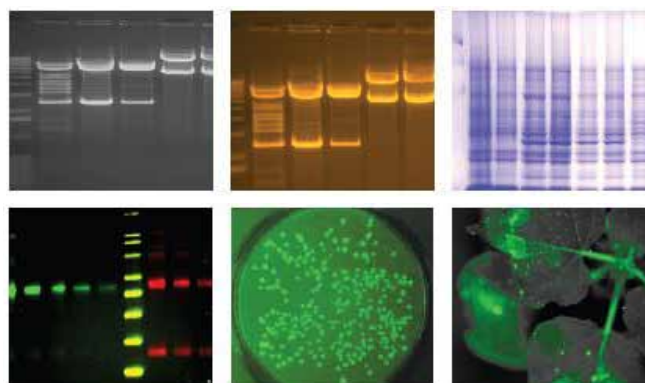
Technical Data

Specifications and features	
Light sources	▪ Overhead: white, red, green and blue LEDs included. ▪ Base lighting: Thin-Line Transilluminator with the choice of UV (302 nm) with High/Low intensity control
Filter wheel	Five-position automated filter wheel
Darkroom features	▪ 13.3" integrated, multi-touch computer (UVP ChemStudio *touch* only) ▪ Fold down door ▪ Thin-Line Transilluminator in a pull-out tray ▪ UV On indicator light ▪ USB port (right panel of unit) ▪ 6 USB ports (back side of unit) ▪ Access port for optional UVP eLITE Light Source
Accessories included	▪ Ethidium bromide filter ▪ VisionWorks® Software for image capture, enhancement and analysis (unlimited licenses) ▪ Flash drive with VisionWorks® Software (license free) ▪ UVP Fluorescent Focus Target ▪ UVP Chemi Tray (black) ▪ UV Gel Tray ▪ UV Protection Shield ▪ Empty flash drive for data and image storage ▪ Keyboard and mouse (touch screen systems only) ▪ Stylus for touch screen (touch screen systems only)
Dimensions: L x W x H	41 x 46 x 61 cm (16 x 18 x 24 inch)
Wireless network capability	Wireless network capable, Wi-Fi, accessory for wired-to-ethernet connection available

Applications

- Gel imaging
- DNA gels
- Protein gels
- Blue/White gels
- Plant imaging
- Fluorescenct dyes
- Colorimetric imaging
- Colony counting

Order Information

Order number	Darkroom, Voltage	Specifications	Applications
Package 1			
849-97-0848-01	UVP ChemStudio *touch*, 115V	▪ 4 MP	Chemiluminescence Fluorescence
849-97-0848-02	UVP ChemStudio *touch*, 230V	▪ Deep level cooling	
849-97-0848-03	UVP ChemStudio, 115V	▪ Automated lens ▪ Software: application based automation	
849-97-0848-04	UVP ChemStudio, 230V	▪ Professional imaging at a budget	
Package 2			
849-97-0928-01	UVP ChemStudio *touch*, 115V	▪ 8 MP	Chemiluminescence Fluorescence
849-97-0928-02	UVP ChemStudio *touch*, 230V	▪ Deep level cooling	
849-97-0928-03	UVP ChemStudio, 115V	▪ Automated lens ▪ Software: application based automation	
849-97-0928-04	UVP ChemStudio, 230V	▪ Highest performance and resolution	
Package 3			
849-97-0929-01	UVP ChemStudio *touch*, 115V	▪ 4 MP	Chemiluminescence Fluorescence
849-97-0929-02	UVP ChemStudio *touch*, 230V	▪ Deep level cooling	
849-97-0929-03	UVP ChemStudio, 115V	▪ Automated lens ▪ Software: application based automation	
849-97-0929-04	UVP ChemStudio, 230V	▪ Highest dynamic range and sensitivity	
Package 4			
849-97-0930-01	UVP ChemStudio *touch*, 115V	▪ 3.2 MP	Chemiluminescence Fluorescence Visible Fluorescence Infrared
849-97-0930-02	UVP ChemStudio *touch*, 230V	▪ Deep level cooling	
849-97-0930-03	UVP ChemStudio, 115V	▪ Automated lens ▪ Software: application based automation	
849-97-0930-04	UVP ChemStudio, 230V	▪ Versatile from chemiluminescence to NIR	

Order number		Description
230 V	**115 V**	**MultiSpectral Light Sources**
849-00300-2	849-00300-4	UVP eLITE Xenon, Kit with epi light fibers
849-00301-2	849-00301-4	UVP eLITE motorized, Kit with epi light fibers
849-00302-2	849-00302-4	UVP eLITE manual, Kit with epi light fibers

Order Information

Order number		Description
230 V		**Emission Filters**
849-00401-0		Emission filter, 50 mm square, with transmission range of 510-560 nm, for, e.g., SYBR® Green
849-00402-0		Emission filter, 50 mm square, with transmission range of 520-620 nm, for, e.g., SYBR® Gold
849-00400-0		Emission filter, 50 mm square, with transmission range of 580-630 nm, for, e.g., Deep Purple, EtBr, RFP
849-00403-0		Emission Filter 465 - 495 nm: CFP mice
849-00404-0		Emission Filter 503 - 523 nm: GFP mice
849-00405-0		Emission Filter 513 - 557 nm: Cy2®, FITC, FAM™, GFP, SYBR® Green, SYBR® Gold
849-00406-0		Emission Filter 565 - 625 nm: Alexa555®, Cy3®, SYPRO® Orange
849-00407-0		Emission Filter 607 - 682 nm: Alexa568®, SYPRO® Red, TexasRed®
849-00408-0		Emission Filter 668 - 722 nm: Alexa633®, Cy5®
849-00409-0		Emission Filter 700 - 740 nm: IRDye 680, CF 680
849-00410-0		Emission Filter 767 - 807 nm: Alexa750®, Cy7®
849-00411-0		Emission Filter 780 nm long pass: Alexa750®
849-00412-0		Emission Filter 800 nm long pass: IRDye 800, CF 770
230 V		**Printing and wired-to-Ethernet accessory**
849-20100-0		UVP Thermal printer Mitsubishi P95DE, high resolution (325 dpi), USB 2.0 interface, 100 - 240 V, dimensions 8.5 x 15.4 x 23.9 (H x W x D cm)
849-20111-0		Thermal printer paper KP65HM, high contrast, 4 rolls at 20 m
849-20110-0		Thermal printer paper K95HG, high glossy, 4 rolls at 18 m
849-20607-0		USB-to-LAN-Adapter
230 V		**Gel Tools**
849-00524-0		UVP Fluorescent Focus Target: fluorescent activated target used for focusing the camera
846-057-013		UVP Gel Scooper: transparent gel scoop, scoop area 14 cm x 15 cm
849-20603-0		UVP Gel-Cutter (Qty. 2)
849-20600-0		UVP Gel-Ruler (Qty. 2)
230 V		**Protective Equipment**
846-055-002		Spectacles, UV Blocking (UVC-303)
849-20602-0		Faceshield, UV blocking

* Please have a look on our homepage to see the full range of available accessories.