

# Say hello to Vü

The future of gel documentation and chemiluminescence imaging.

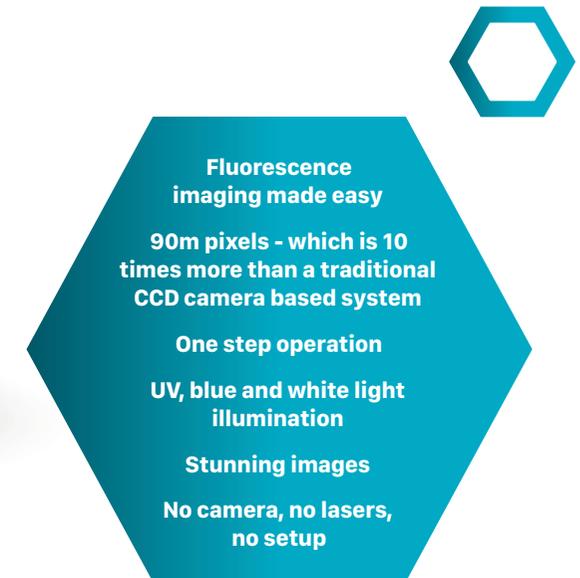


pop bio  
IMAGING

**It's time for change** - imaging systems,  
re-writing the gel documentation rule book

# The Vü-F Fluorescence System

Simply the latest technology to enhance your gel and blot imaging.



The Vü is designed for fluorescence applications such as DNA gels, protein gels, and safe dye gels. The sliding drawer can accept samples up to 20cm x 20cm.

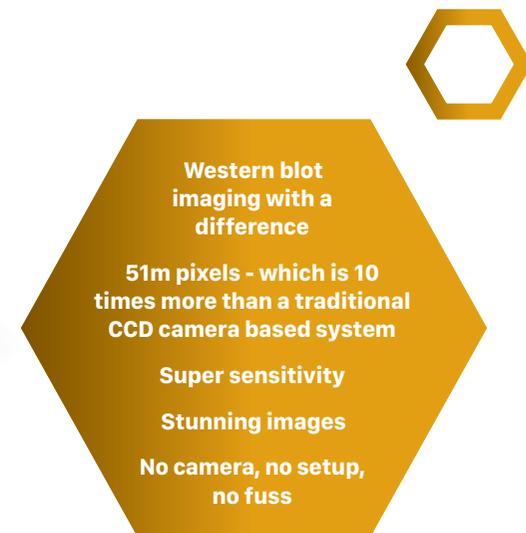
For safe dyes, the Vü utilises integral blue LED's. You can also use a white light converter to view commassie and silver stain samples. And although use of traditional ethidium bromide stained UV gels may be declining, we've built in a useful 302nm light source as well.

## **Simple to use, with exceptional results**

Just place a sample on the tray, select lighting and area using the thumbwheels and push the draw in with your finger. Vü detects the sample type and captures an image using either UV or blue light. No fancy screens or massive processors which need constant upgrading and can go wrong. Just the latest technology and an exceptional design.

# The Vü-C Chemiluminescence System

Raise the bar with this highly sensitive new imaging platform.



Using Pop Bio's advanced image mapping technology\*, the high sensitivity sensors in the Vü can easily capture low output blots to provide a truly outstanding image.

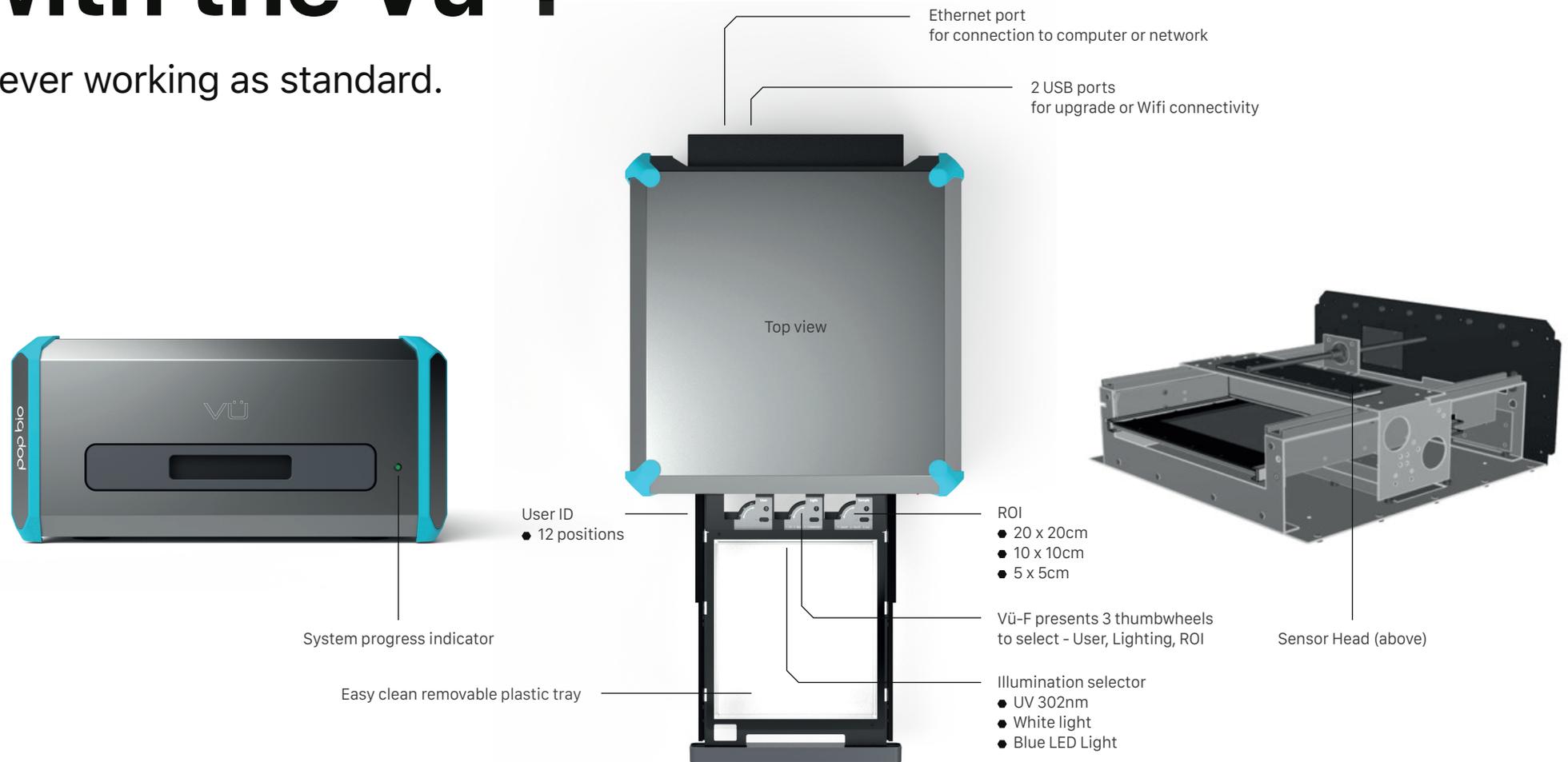
#### **Easy input, incredible output**

Just place the blot (up to 10cms x 10cms) in the marked position on the tray and push into Vü with your finger. The Vü immediately recognises the thumbwheel setting and adapts to the blot size or application type.

Depending on your sample type, your image will appear in seconds or minutes ready for you to print or analyse. No fuss, no hassle, no drama, no camera, lens or filters to worry about. No sensitivity issues, no focussing needed. Just the best image you have ever seen - whether it is of a faint band or a high signal output blot.

# Fluorescence with the Vü-F

Clever working as standard.



Unlike a traditional CCD based gel documentation system the Vü works just like a 'copier' for gels and blots. The user just has to define the illumination type, size of gel and optional User ID using three thumbwheels. Once selected the Vü processors take over and determine how best to capture an image. A fluorescence gel will be mapped in around 1 minute.

Vü-F has a clever sensor array which is placed very close to the sample in order to collect the light output. The array moves across the sample to map the output and to produce an image – amazingly it can detect the faintest of signals. Images are then sent via a network connection or to a computer which directly connects to the Vü for on bench viewing.

# Chemiluminescence with the Vü-C

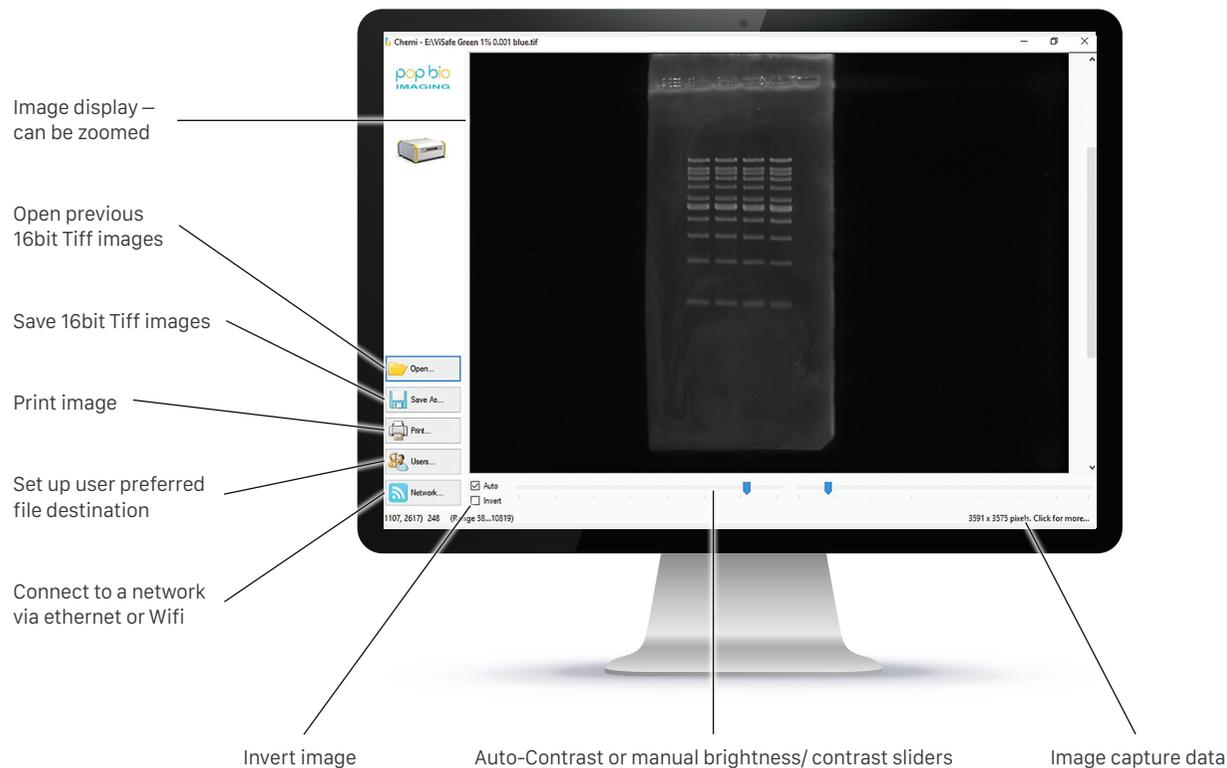
Chemiluminescence made easy for all.



So how does this work? Instead of using a cooled CCD camera, the Vü uses a sensor head unit which features a linear array of high sensitivity sensors. With those sensors placed in close proximity to the blot, and moving backwards and forwards multiple times, the light output can be collected and measured. The position and output level of the light emission is measured for decreases and increases. Once the Vü's head unit has collected enough light to form an image, the image will be then sent for viewing.

Thanks to this simple fully automated imaging process system controlled by intelligent software, there's no need to work with capture software or a complex user interface again. A typical 10 x 10cm blot is mapped within 2 – 4 minutes. Marker lanes – black and white or coloured – can also be captured and displayed.

# Unique software driving the Vü system



## Analysis software

Each Vü system is supplied with a copy of 1D analysis software

- Analysis of 1D gels and Western blots is rapid and automated to a high level and reproducible.
- Highly developed algorithms accurately detect lanes and bands even on distorted gel images.
- Bands calibrated using one or more Molecular Size standard lanes.
- Absolute band quantitation derived using known quantity calibration standards in samples.
- Ability to review each stage of workflow analysis and intervene / edit if required.
- High levels of automation combined with final user review for rapid and accurate quantitative analysis.

## Desktop friendly size



The Vü software is used to collect, save and print images - and it also provides access to the system set up menus. The Vü processor creates the image and sends it to a network via and ethernet or WIFI connection. Alternatively, Vü can be connected to a stand-alone computer.

The Vü software is compatible with any computer running Windows 7 or higher. The Vü software also has hidden setup functions that can be accessed by a qualified person to be able to make further adjustments to the operation of the Vü system.

# Incredible imaging options



## The latest CMOS Technology

Instead of a camera, the Vü's head unit contains a linear array of high sensitivity CMOS sensors; moved in close proximity across the sample, backwards and forwards multiple times to collect the light output. The position and output level of the light emission is measured, with increases or decreases recorded. Once the Vü's head unit has collected enough light to form an image (just 60 seconds for fluorescence and 2-5 minutes for chemiluminescence western blot), the device automatically sends it to a device for viewing – thanks to a fully automatic imaging process controlled by the embedded intelligent software.

## The CMOS Advantage

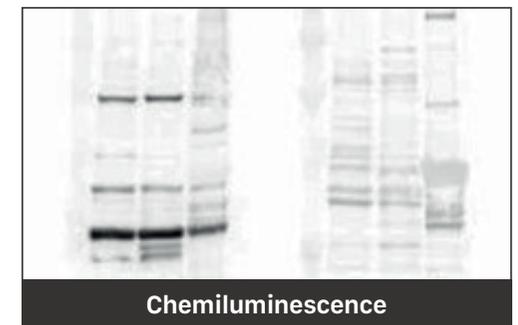
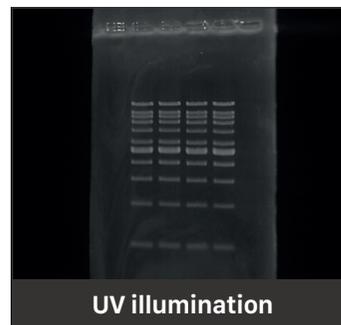
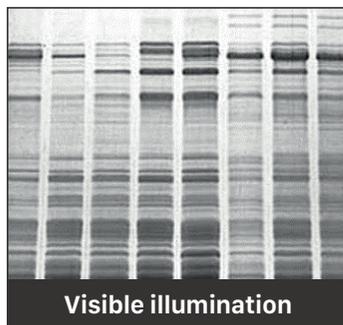
It is well known that CMOS sensors outperform CCD's in most applications such as in fluorescence and chemiluminescence where there is a visible light output. Also a very important feature of a CMOS sensor is the incredible low noise as compared to a CCD. Of course CMOS technology has advanced significantly in the last few years ( just take a look at your mobile phone which uses the same technology) and that is why in the Vu systems we are using the very latest variants to produce high end systems at significantly lower prices than conventional CCD based units. CCD systems are really a throw back to the past – it's time for change.

## Super high resolution as standard

The Vü-F can image samples using UV, blue light or white light. The sensor set up uses an amazing 90m pixels of resolution to collect a high end image. Images are saved as 16bit TIFF or can be printed directly from the interface. To make the images easier to handle we output them to a more manageable 12m pixels at 300dpi – still more than enough to make large poster size prints with no loss of detail or data.

## Imaging Superiority over CCD

When it comes to chemiluminescence the Vü-C really does excel. With over 51m pixels of resolution then you can expect high end images. Again to make them more manageable we output images at 2.34m pixels which can still produce a high quality poster image. Not only does the Vü-C image the blot itself it can also be set to image coloured or black/white markers. All of this is setup using the simple thumbwheel selector system found in the Vü range. Crucially, because of the high performance CMOS sensors the system produces images with virtually zero background without the need for any expensive Peltier cooling which is necessary on a CCD based system.



# There is another way. Let Vü show you the future of gel and blot documentation.

	Vü-F	Vü-C	Vü-CF
<b>Application</b>	Fluorescent gels and blots	Chemiluminescence Western blots	Fluorescent gels and blots Chemiluminescence Western blots
<b>Illumination</b>	UV integral 302nm (1 tube) Blue light integral LEDs White light conversion screen	White LED's for marker lane RGB LED's for coloured marker lane	UV integral 302nm (1 tube) Blue light integral LEDs White light conversion screen White LED's for marker lane RGB LED's for coloured marker lane
<b>Sample size (cm)</b>	20 x 20	10 x 10	20 x 20 (F) and 10 x 10 (C)
<b>Sample Drawer</b>	Thumbwheel selection for lighting, ROI and user	Thumbwheel selection for lighting and user	Thumbwheel selection for lighting, ROI (F only) and user
<b>Drawer type</b>	Pull out drawer with removable washable gel tray	Pull out drawer with removable washable blot tray	Pull out drawer with removable washable gel tray
<b>Sensor resolution</b>	90M pixel	51M pixel	90M pixel & 51M pixel
<b>Image output resolution</b>	3550 x 3550 (12.6M pixel)	1530 x 1530 (2.34M pixel)	3550 x 3550 (12.6M pixel) (F) 1530 x 1530 (2.34M pixel) (C)
<b>Image format</b>	TIFF	TIFF	TIFF
<b>Sensor type</b>	CMOS linear	CMOS linear high sensitivity	CMOS linear high sensitivity
<b>Process speed</b>	20-90 seconds - depends on gel and dye used	2-5 minutes - depends on blot and reagent	20-90 seconds - depends on gel and dye used (F) 2-5 minutes - depends on blot and reagent (C)
<b>Footprint (mm)</b>	480D x 426W x 205H	375D x 353W x 175H	480D x 426W x 205H (F) 375D x 353W x 175H (C)
<b>Power Supply</b>	100-240V external	100-240V external	100-240V external
<b>Connectivity</b>	Integral ethernet; optional external WiFi	Integral ethernet; optional external WiFi	Integral ethernet; optional external WiFi
<b>Analysis software</b>	3 copies	3 copies	3 copies
<b>Warranty</b>	2 years	2 years	2 years

## Ready to enjoy the Vü?

Get in touch for more information  
or to book a demo.

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www.pop-bioimaging.com

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**Brought to you by Pop Bio Imaging –  
the home of innovative imaging products.**

Pop Bio Imaging is built on over 100 years of collective imaging experience, with our expert development team having developed multiple patented imaging techniques for the scientific and healthcare markets. With extensive world-wide distribution experience in the establishment of sales channels for gel and blot imaging systems, Pop Bio Imaging is a well-known and respected group in the life science market.

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