# Gel Documentation System

## Darsun Scientific

# Gel Documentation System

## DS-04S-3C/DS-04S-3E

DS Documentation system is used for gel map observation after electrophoresis running. DNA or other bio-molecules can not be seen under natural light ,but with the help of UV light and high- resolution CCD, it can be realized with fluorescent stain , such as ethidium bromide.

Working with software, the electrophoretogram can be analyzed and photographed by gel documentation system. Meanwhile, the images can be zoomed in and out according to users' requirements
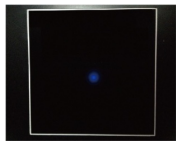
## Product Overview

CCD with lower lux and high-resolution, easy to get dim stripes and real-time brow se, whole-screen display and simple to operate:

6x zoom lens, easy to observe the zooming of gel.

It is easy to observe to place the gel to the center with a center indicator. Intelligent control of dark box:

The zoom, focus, aperture, UV light and white light can be controlled by panel keys. Auto-shut-down function for UV light when the door is opened and a controlled switch to UV light for gel cut.

Auto-delay-shutdown function for UV light. Zoom lens protection, RS232/USB interface.

Drawer-design gel platform with gel-cut protective cover, convenient to observe, operate and cut gel.

White light conversion plate.

Multi-layer coated filter kit, effectively filter out background interference noise. The zoom, focus, aperture, UV light and white light can be controlled by PC. Normative and reliable modular-design components, easy to maintain and replace

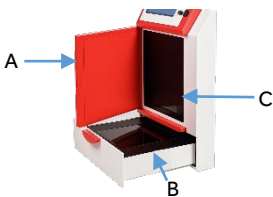| Model A | DS-04S-3C | DS-04S-3E |
|---|---|---|
| Effective pixel | 1280x1024 | 2560x1920 |
| Pixel density | 10 bit | 10 bit |
| Pixel size | 5.4x5.4(um) | 5.4x5.4(um) |
| Resolution | 1.4 megapixels | 5.4x5.4(um) |
| Signal to noise ratio | >56db | >56db |
| Sensitivity | Candetect the double chain DNAofEBstaining below 20pg | Candetect the double chain DNAofEBstaining below 20pg. |
| Camera | low illumination and high-resolution digital CCD | low illumination and high-resolution digital CCD |
| Zoom Lens | F=l :1.2, 2/3" inch 6x zoomlens | F=l :1.2, 2/3" inch 6x zoomlens |
| Filter | 590 (nm) | 590 (nm) |
| UVlight transmission size(Wxl) | 250x200(mm) | 250x200(mm) |
| Visible light transmission size(Wxl ) | 250x210(mm) | 250x210(mm) |
| Transmission UV wavelength | 302 (nm) | 302 (nm) |
| Reflectance UV wavelength | 254, 365(nm) | 254, 365(nm) |
| Transmission UV lamp power | 302nm (8W) | 302nm (8W) |
| Reflectance UV lamp power | 254nm (11W), 365nm (11W) | 254nm (11W), 365nm (11W) |
| Dimension (LxWxH) | 470 x 405x820 (mm) | 470 x 405x820 (mm) |
| Weight | 29.0(kg) | 29.0(kg) |

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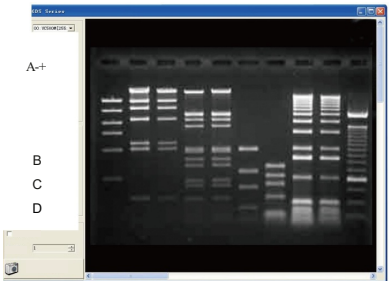UV protective cover, easy and safe to cut gel

Center position indicator

A Gel observation door
B Drawer design gel platform
C Gel observation window

1. Real time image preview and photograph
The exposure value adjustment: according to the different experimental conditions, automatically or manually adjust the exposure value, can achieve the best effect exposure.
Light control button: You can control the white light
and other three UV lamps through the connected computer. Fine and coarse adjustment button: Users can choose the regulation speed.
Zoom, focus, aperture adjusting button: you can adjust the image size, focal length and aperture
by computer.
Flip vertical button: according to the need to flip the image; Image capture button: you can take and save the image.

2. Image analysis
The lanes can be recognized automatically and manually. Bacterial colony and dot hybridization can be analyzed and colony can be counted automatically and manually.
Molecular weight, optical density, mobility, pH value and percentage can be calculated and comprised.
Experiment reports can be exported to text and excel format and printed out.

3 image processing
A Experimental data's can be remarked with text, arrows, graphics and other annotation tools for mis operation and data's protection for unlimited undo.
B Images can be rotated zoomed, anti-colored and adjusted on brightness, grayscale and contest.

| Parts name | Quantity |
|---|---|
| Mainframe | 1 |
| UV protective cover | 1 |
| White light conversion board | 1 |
| Control line | 1 |
| USB line | 1 |
| 5A insurance tube | 2 |
| Power cord | 1 |

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