

Gel Documentation

microDOC

- 8.0 mega pixel digital camera
- Image is viewed from a 5.7" TFT colour monitor
- Light weight compact hood with easy access door and inner built in lights
- Can be used computer free
- Safety door switch
- Includes flash card, flash card reader and Ethidium bromide filter

microDOC is a simple, inexpensive and ultra compact gel documentation system. It contains a 16 bit CCD digital camera with a superb resolution of 8.0 mega pixels. For added convenience, limited space and budget requirements, microDOC can be used computer free. The image is viewed from a large 5.6" TFT colour liquid crystal display. A variety of images can be captured from agarose and other fluorescent gels, colorimetric gels, auto radiography film, and blotting membranes. The system is fitted with a 55mm ethidium bromide filter and has a safety switch to turn off the UV Transilluminator when the door is opened. Files can be saved in a variety of formats for transfer to computer systems for storage and analysis. microDOC can be directly connected to a thermal printer - CSL-PRINT - or to many other commercially available printers.



Complete range of gel documentation, chemiluminescent and fluorescent systems available, please inquire



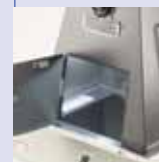
easily lifted on and off transilluminator



high resolution 8Mb digital camera



separate power and light switches



internal illumination when door is open

Technical Specifications

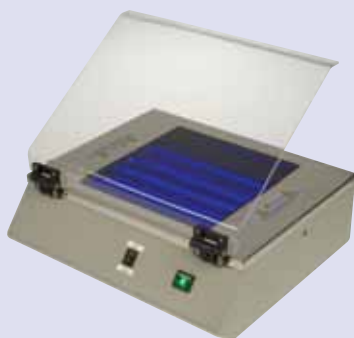
Camera:	
Effective pixels:	8.0 million
CCD:	2/3" high-density CCD; total pixels 8.31 million
Max field of view:	29 x 22 cm
Image resolution:	640 x 480 up to 3,264 x Lens: 8 x optical zoom 8.9~71.2 mm
F / -number:	f/2.8~f/4.2
File formats:	RAW, TIFF-RGB, JPEG;
Auto focus:	Contract-detect through-the-lens (TTL) AF with AF-assist illuminator.
Focus-area selection:	Five-area multi AF, manual selection available
Filter:	55 mm Ethidium Bromide
Hood:	
Multi power source:	For camera, inner light lamp, TFT screen
Inner white lamp x 2 tubes	
Safety door switch:	Shuts down UV transilluminator when the door is opened
5.7" TFT liquid crystal screen	
Display format:	960 x 234 mm
Luminance:	250 cd/mm
Display mode:	NTSC/PAL mode switchable Video and audio input
Hood dimension:	290 x 220 x 320mm (WxDxH)

Ordering Information

CSL-MICRODOC	microDOC System, including 8.0 mega pixel digital camera, camera adaptor, 5.7" TFT colour screen, EtBr filter, camera hood		
CSL-MDOCEB	Ethidium Bromide filter		
CSL-MDOCSBRG	SyBr Green Filter	CSL-PRT PAP	Replacement paper for thermal printer.
CSL-PRINT	Thermal Printer	CSL-UVSCRN	UV to white light Transilluminator screen converter

For 110 V AC, please add '-S' as a suffix to the appropriate code

UV TRANSILLUMINATORS



These UV Transilluminators are multitasking workstations which offer an ultra-violet source for the analysis of fluorescently stained DNA, RNA, and Protein electrophoresis gels. These also offer space to place tube racks, cutting tools or waste agarose gel, ideal when there is a need to cut bands.

These new generation UV transilluminators include a specially designed safety UV leakage indicator which changes colour when UV light is detected. Each model includes a High Low intensity switch. A new and high quality starter ensures that the UV tubes energise immediately and without flickering. This feature extends the life of the tubes. Two Dual wavelength models offer added flexibility and convenience.

- Three wavelength options: 254/312/365 nm - two Dual wavelength models
- Long life filter
- High efficiency reflector
- Hi / Lo intensity switch
- Fast start up

Technical Specifications

Filter size	20 x 20 cm
Light source:	8W x 6 tubes
UV resistant plastic cover:	33 x 25cm (WxD)
Unit Dimensions WxLxH	34 x 29.5 x 10cm

Ordering Information

CSL-UVTS312	UV Transilluminator small, 20 x 20 cm, 312 nm	Replacement Parts	CSL-T365	8W 365 nm UV bulb	
CSL-UVTS254	UV Transilluminator small, 20 x 20 cm, 254/365 nm	CSL-T254	8W 254 nm UV bulb	CSL-F	20 x 20 cm filter
CSL-UVTS254/312	UV Transilluminator small, 20 x 20 cm, 254/312 nm	CSL-T312	8W 312 nm UV bulb	CSL-C	UV protected cover

For 110 V AC, please add '-S' as a suffix to the appropriate code

Product Specification:

TotalLab™ TL100 v2008

1D Analysis Module

General

- Fully automatic, single button press complete image analysis within area of interest if required
- Instant access to refinement of any analysis step
- Alternative step-wise image analysis for each step
- Facility to load and save user preferences, including parameters and display options, prior to analysis
- Automatic PDF report generator
- Ruler options to display lane names, numbers and MWs

Lane Creation

- Automatic lane detection
- Export and import of lane templates
- Manual lane detection
- Multi-tier analysis
- Move, resize and bend multi-box
- Move, resize and bend individual lanes
- Add grimaces to account for band distortion
- Delete lanes

Background Subtraction

- Automatic methods
 - Rolling ball
 - Rubber band
 - Minimum profile
 - Valley to valley
 - Lane edge subtract
- Manual methods
 - Image rectangle
 - Image stripe
 - Manual baseline

Band Detection

- Fully automatic band detection
 - Adjustable peak parameters:
 - Minimum peak
 - Noise reduction
 - % max peak of lane or gel
 - Band edge detection methods:
-

- Single edge
- Automatic detection
- Fixed width
- % peak
- Manual editing of peak and edge detection in image and lane profile windows
- Snap to peak editing
- Automatic band measurements
- View band measurements in measurements table
- Wide range of data fields to display in measurements table
- Histograms for viewing band data
- View multiple lane profiles either stacked or overlaid
- Export lane profile information

Profile Deconvolution

- Fit Gaussian curves to profile
- One Gaussian per band
- Manual adjustments of Gaussian

Molecular Size / pI Calibration

- Library of standards
- Add new standards
- Edit existing standards
- Automatic assignment of standard bands
- Propagation by Rf between standards
- 6 curve fitting methods
- MWs automatically displayed in measurements table
- pI standards can increase or decrease

Quantity Calibration

- Range of methods to quantify:
 - Selected bands
 - Individual lanes
 - Average of selected bands
 - Total of selected bands
- Manually assign known values to bands
- Range of calibration units
- View interpolated and extrapolated values in measurements table

Toolbox Module

General

- Analyse an image using generic tools
 - Lines category options:
 - Line
 - Polyline
 - Spline
 - Freehand
 - Areas category options:
 - Rectangle
 - Polygon
 - Elipse
 - Closed spline
 - Grid tool
 - Auto trace tool for object detection
 - Selection tool for easy shape selection / deselection
-

Editing

- Hide / display objects
- Simple grouping of multiple objects to be manipulated as single object
- Move handle to new location
- Delete selected feature
- Delete all features

Background Subtraction

- Automatic methods
 - Local average
 - Local median
 - Histogram peak
- Manual method
 - Image rectangle / ellipse

Additional features in Toolbox

- Annotate image
 - Objects can be given names and comments
 - Wide range of data fields to display in measurements table
-

Array Analysis Module

Grid Definition

- Automatic grid detection
- Grids can be exported to and imported from a file
- Choice of 3 spot shapes:
 - Circle
 - Square
 - Slot
- Define spot diameter prior to grid creation
- Detects grids up to 1,536 spots
- Standard grid types supplied
- Create new grid formats
- Edit existing grid types
- Resize grids
- Adjust for skewed images
- Delete selected grid

Spot Editing

- Reposition spots
- Resize spots
- Make changes to individual spots, groups of spots or entire grid
- Spot properties dialog
- Spot label field

Spot Measurement

- Volumes automatically calculated following grid detection
 - Data displayed in measurements table
 - Measurements table can display:
 - Current grid
 - Selected spots
 - All spots
 - Dynamic updating of tables
 - Wide range of data fields to display in measurements table
 - Show/hide spot numbers
-

- Select spots for negative controls
- Select spots that will not be measured

Background Subtraction

- Automatic methods
 - Spot surface minimum
 - Spot edge average
- Semi automatic methods
 - Negative control
 - Image rectangle

Normalisation

- Choice of normalisation units
- Single click operation
- Normalise to single or group of spots
- Normalise to spot group average or collective volume

Presence/Absence Flagging

- Automatic flagging based on estimate of threshold
- Manual setting of threshold
- View results in measurements table
- Colour overlay of image to view flagging results

Colony Counting Module

Spot Detection

- Define circular or rectangular area of interest
- Easy control slider bars for sensitivity and operator size
- Initialise sensitivity option
- Advanced parameter settings for sensitivity, noise, operator size and background
- Automatic splitting function
- Total count and spot data automatically displayed in measurements table
- Wide range of data fields to display in measurements table

Editing

- Draw, erase, delete or split features
- Adjustable pen size for drawing or erasing
- Renumber features
- Delete all features

Background Subtraction

- Methods available:
 - Image rectangle
 - Mode of non-spot

Additional Features in TL100

- Supports multiple image formats:
 - .tiff
 - .gel
 - .jpg
 - .bmp
 - .gif
 - .png
 - .img (Fuji format)
 - Access to all analysis functions in “wizard-style” interface
-

- Image editor tool accessible from any module for image manipulation including:
 - Crop
 - Rotate
 - Filter
 - Flip
 - Storage of image properties and image edits performed using the image editor
 - On-the-fly recalculation after all editing
 - Invert intensity measurements facility
 - Simple data transfer to Microsoft Excel, clipboard or file
 - Comprehensive Help menu and tutorial files
 - Context-specific help panes
 - Tool tips on all features
 - Adjust contrast/brightness/colour of image
 - Comprehensive and customisable image annotations
 - Customisable image and table display options
 - User-definable colour display options
 - Zoom control for image viewing
 - Magnify tool
 - Panning tool
 - Print preview
-