

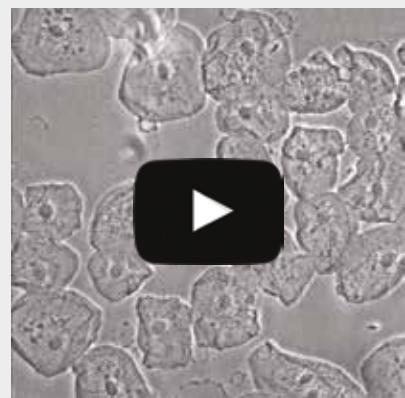
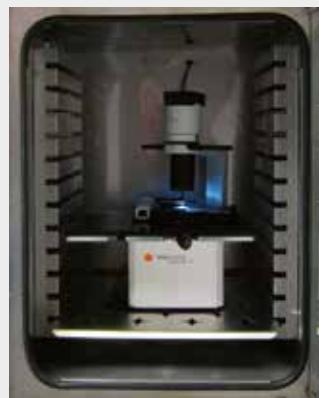
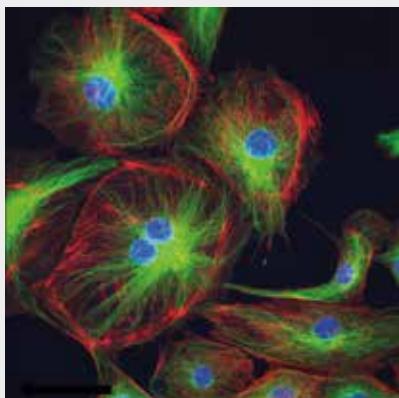


# Lumascope 720

Fully automated microscopy



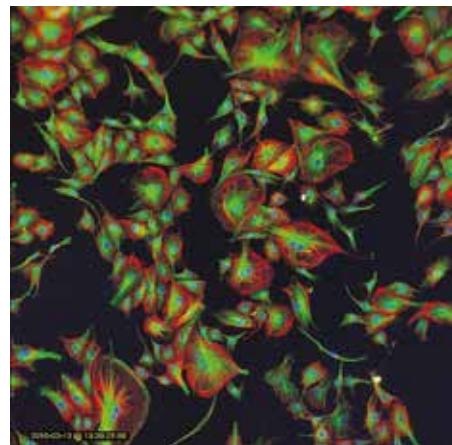
- High resolution 3-color fluorescence
- Blue, green and red excitation
- Brightfield and phase contrast
- Automated XY stage & auto-Z-focus
- Live cell imaging in your incubator



*Accelerate your biomedical research*

# Blue, green & red fluorescence and walk-away automation

The powerful, new Lumascope 720 (LS720) adds walk-away automation to the many features and high performance of the flagship 3-color LS620. Exquisite XY motion control, motorized focus that allows autofocus and z-stacks, and easy-to-configure software combine to facilitate your microscopy experiments and high content screens. Place the LS720 in your incubator and you have a live cell imaging system at a fraction of the cost of conventional HCS systems. Whether imaging multiple fields in your flasks or 1 536 wells of cells with 3 fluorophores in a 48 hour time-lapse, the 720 offers a whole new world of automated microscopy.



Typical 3-color fluorescent image with 720 optics

## Features and benefits

- Automated XY stage with autofocus in Z provides images
- Time-lapse series, and videos recorded directly to your computer
- Visualize cells from microplates, flasks, slides or custom labware
- Modern LED and advanced optical design provide near diffraction-limited (theoretical maximum) resolution
- Robust software allows set-up and control across many locations, including microplates and custom arrays
- Versatile and compact design enables use inside cell culture incubators and hoods
- Detects blue, green and red fluorophores, including BFP, DAPI, FITC, Fluo-4, GFP & mCherry
- Flip-up deck allows easy objective access
- Used manually, but also robot compatible (RS485, RS232, 5V digital interfaces)
- Objective compatibility with standard lenses permits use of your own objectives

LS720 technical specifications	
<b>Optics</b>	Blue, green & red fluorescence; brightfield. Phase contrast optional
<b>Objective options</b>	2.5x, 4x, 10x, 20x, 40x, 60x, and 100x(oil) magnification
<b>Objective compatibilities</b>	RMS-threaded, infinity corrected, 45 mm parfocal distance
<b>Fluorescence filters</b>	Blue: Excitation 370-410 nm, Emission 429-462 nm Green: Excitation 473-491 nm, Emission 502-561 nm Red: Excitation 580-598 nm, Emission 612-680 nm
<b>Camera</b>	High Sensitivity Monochrome CMOS Sensor; C-mount
<b>Image formats</b>	JPG, BMP, TIF, GIF, or PNG
<b>Image size</b>	100 x 100 to 1 900 x 1 900 pixels
<b>Field of view</b>	0.9 x 0.9 mm with 20x objective
<b>Video rates</b>	Up to 10 frames per second (fps); with reduced frame size, up to 30 fps
<b>Automated XY stage</b>	SBS nest, 6- to 1 536-well microplates; microfluidic chambers (contact Etaluma)
<b>Subdeck</b>	No automation; most flasks, dishes, other
<b>Stage travel range</b>	110 mm x 74 mm
<b>Stage move speed</b>	25 mm/sec
<b>Well-to-well time (seconds)</b>	Image 96 wells: a) 1 color focus & image: 13 min, b) 3 color focus & image: 34 min
<b>Computer requirements</b>	Windows 7, 8, 8.1; 2 monitors recommended
<b>Automation friendly</b>	SDK available
<b>Power requirements</b>	USB for Lumascope; 100-240 V, 50-60 Hz for AutoStage
<b>Dimensions</b>	37.2 cm W x 40.5 cm D x 22.4 cm H (14.6 in W x 15.9 in D x 8.82 in H) Weight 11 kg (25 lb)
<b>Operating conditions</b>	0 °C - 42 °C, 5% - 95% RH non-condensing