

## Technical Information for the Nikon A1R Live Cell Imaging System

Scanner (standard) (high speed)	galvano scanner x2 with max pixel size 4096 x 4096 Resonant (x axis frequency 7.8kHz) with max pixel size 512 x 512 Scanning speed: 30 fps (512 x 512 pixels) to 420 fps (512 x32 pixels)
Microscope:	ECLIPSE Ti-E automated, inverted microscope
Available Objectives:	10x dry, 0.45 N.A., WD 4mm 20x dry, 0.75 N.A., WD 1mm 40x oil, 1.3 N.A., WD 0.2mm 60x oil, 1.4 N.A., WD 0.13mm 60x water, 1.2 N.A., WD 0.27mm 100x oil, 1.45 N.A., WD 0.13mm
Laser wavelengths (nm):	402, 487, 561, 638
Dichroics:	405/488, 405/488/561, 405/488/561/640, (BS20/80)
Barrier Filters:	450/50, 482/35 (refl), 485/35 (CFP), 525/50, 595/50, 700/75
Detectors	Standard: 4 PMT, 2 GaAsP detectors and 2 High Sensitivity low noise with spectral sensitivity up to 850nm Spectral: 32 Anode PMT Spectral Detector with 2.5nm, 6nm, and 10nm gratings Hamamatsu ImagEM CCD Camera, model C9100-13, 16 bit images in 512x512 format for widefield applications
Piezo Z motor:	High-speed piezo stage-positioning system (Mad City Labs)
Motorized stage:	Encoded XY Stage, joystick, controller, Universal insert: slide/dish
Atmospheric control system:	Okolab Bold Line.temperature and CO2 control unit

### Manufacturers Website:

<http://www.nikon.com/products/instruments/lineup/bioscience/confocal/singlephoton/a1/spec.htm>