

# Nikon A1R (Biosciences)

## INSTRUMENT SPECIFICATION SHEET



<b>Location</b>	Biosciences 4 room 332						
<b>Stand</b>	Inverted Eclipse Ti-E						
<b>Illumination</b>	<b>Transmitted</b>				<b>Fluorescence</b>		
	12V /100W Halogen lamp				Intensilight C-HGFI ( 130W Metal halide)		
<b>Filters</b>	<b>Name</b>	<b>Excitation</b>		<b>Dichroic</b>	<b>Emission</b>		
	DAPI	340-380		400	435-485	MBE41305	
	FITC	465-495		505	515-555	MBE44725	
	TRITC	528-553		565	590-650	MBE45605	
<b>Lasers</b>	<b>Type</b>		<b>Wavelength</b>		<b>Maximum output</b>		
	LD		405		15 mW		
	LD		488		15 mW		
	DPSS		561		8 mW		
LD		640		15 mW			
<b>Stage control</b>	Motorized XY stage , Piezo stage (100 micron travel)						
<b>Objectives Specification</b>	<b>Magnification</b>	<b>Type</b>	<b>NA</b>	<b>Working distance</b>	<b>Coverslip Thickness</b>		<b>Resolution at 550nm (Glycerol mounted)</b>
10x PL APO Lambda MRD00105	10x	Air	0.45	4000	170	DIC N1	Lateral: 489 Axial: 1164
20x PL APO MRD00205	20x	Air	0.75	1000	170	DIC N2	Lateral: 293 Axial: 655
40x PL APO MRD 00405	40x	Air	0.95	160-250	Correction collar: 0.11-0.23	DIC	Lateral: 232 Axial:551
40x PL FLUO MRH01401	40x	Oil	1.3	200	170	DIC N2	Lateral: 169 Axial: 403
CFI APO Lambda S MRD71600	60x	Oil	1.4	140	170	DIC N2	Lateral: 157 Axial: 374
PLAN APO IR 60X MRY10060	60X	WI	1.27	130	170	P2 DIC	Lateral:173 Axial:412
<b>Detectors</b>	<b>#</b>	<b>Type</b>		<b>Details</b>			
DU4	2	PMT					
	2	GaAsP PMT					
DUVB	2	GaAsP PMT		Dichroic to be installed for simultaneous imaging Spectrum scan mode: 400-720 narrowest 10nm			

			Variable band mode: user-defined wavelength bands
Diascopic detector unit	1	TPMT	Transmitted light detector
<b>Software</b>	NIS Elements AR 4.6		
<b>Holder</b>	Slides, multiwell and petri dishes		
<b>Applications</b>	Fixed sample and live samples		
<b>File Saving</b>	External USB		
<b>Extra features</b>	Resonant scanner , Perfect focus system, motorized stage, Enclosure for live imaging, CO <sub>2</sub> and temperature controller, Deconvolution running on GPU, JOBS conditional acquisition module, General Analysis module, FRET analysis module		