

# SingleShot® Micro Imaging System

Modular fixed imaging lens system with exceptional performance over a larger field of view

- Use with large format 4/3", 1.1" and 1" sensors
- Digital zoom using Pixelink Capture software
- Compatible with coaxial, ring light or Kohler illumination
- Modular fixed imaging system
- Much larger field of view
- Resolve ~1.24-3.59 microns

## FIELD OF VIEW MATRIX

OBJECTIVE LENS	TUBE LENS				110 mm 1-290419	160 mm 1-290070
	Pixel Resolution (µm)				1.26	1.80
	W.D. (mm)	DOF (mm)	Res. Limit (µm)	Format	Diagonal	
160 mm NA: 0.094 1-290070	50	0.057	3.59	Mag.	0.71	1.00
				2/3"	15.48	10.98
				1"	22.52	15.98
				1.1"	24.60	17.46
				1.2"	27.16	19.27
				4/3"	31.67	22.47
110 mm NA: 0.136 1-290419	39	0.028	2.53	Mag.	1.01	1.41
				2/3"	10.92	7.78
				1"	15.88	11.32
				1.1"	17.35	12.36
				1.2"	19.16	13.65
				4/3"	22.33	15.91
80 mm NA: 0.188 1-290069	25	0.015	1.82	Mag.	1.40	2.01
				2/3"	7.88	5.47
				1"	11.46	7.96
				1.1"	12.52	8.70
				1.2"	13.83	9.60
				4/3"	16.12	11.20
53 mm NA: 0.283 1-290418	12	0.007	1.24	Mag.	2.09	3.01
				2/3"	5.26	3.65
				1"	7.65	5.32
				1.1"	8.35	5.81
				1.2"	9.22	6.41
				4/3"	10.75	7.47

Gray box: Contact your Navitar sales representative for further guidance when selecting this option.

## OBJECTIVE LENS SPECIFICATION TABLE

	STANDARD OBJECTIVES			
	160 mm Tube Lens	110 mm Tube Lens	80 mm Objective	53 mm Objective
Aperture Size (mm)	30.00	30.00	30.00	30.00
EFL (mm)	160	110	80	53
F-number	5.33	3.67	2.67	1.77
NA	0.094	0.136	0.188	0.283
Wavelength (nm)	445-655	445-655	445-655	445-655
Zoom	Digital	Digital	Digital	Digital
Distortion (%)	0.80	0.70	0.50	0.15
Working Distance (mm)	50	39	25	12
Min Feature Size (µm)	3.59	2.53	1.82	1.24



SingleShot Lens System with Pixelink Camera

## ADDITIONAL BENEFITS

- Achieve a wider field of view to capture more of the sample with each image - enabling faster object detection and increasing throughput.
- Keep a state of live cell behavior in sight for a longer observation time while reducing cell toxicity and photobleaching.
- Increase throughput by eliminating the need to move optics or the stage and waiting for the software to stitch images together.
- Easily see panoramic images over larger field of view.

## Applications that will benefit from a wider field of view

### LIFE SCIENCE

- cell imaging
- multi-well imaging
- microfluidic device imaging
- biomedical 3D measurements
- fluorescence microscopy

### INDUSTRIAL

- semiconductor defect inspection
- flat panel display inspection
- industrial inspection

## SingleShot™ Wide Field of View Objective Lens System Diagram

