

Pre-Configured Trinocular System Packages

Standard Image Capture Systems

Pre-Configured Micro Zoom System Packages

Standard Image Capture Systems



SSZ-II PK7 WSXGA Camera Systems

- | | | |
|--|---|--|
| Package Contents | Package | Part Number |
| <ul style="list-style-type: none"> ● SSZ trinocular body ● Gliding boom stand ● Ring light adaptor ● CC-WSXGA-CD1 Digital Camera ● 22" LCD monitor ● Your choice of lighting | <ul style="list-style-type: none"> ● 10X eyepieces ● 0.5X objective lens ● Focus mount ● 0.5X video coupler ▲ w/ fluorescent ring light ▲ w/ adjustable LED ring light ▲ w/ fiber optic annular ring light ▲ w/ fiber optic dual pipe light | <ul style="list-style-type: none"> ● SZ-PK7-FR ● SZ-PK7-LED ● SZ-PK7-AN ● SZ-PK7-DPL |

NZ PK7 WSXGA Camera Systems

- | | | |
|---|---|--|
| Package Contents | Package | Part Number |
| <ul style="list-style-type: none"> ● NZ trinocular body ● Gliding boom stand ● 22" LCD monitor ● CC-WSXGA-CD1 Digital Camera ● Your choice of lighting | <ul style="list-style-type: none"> ● 10X eyepieces ● 0.5X objective lens ● Focus mount ● 0.4X video coupler ▲ w/ fluorescent ring light ▲ w/ adjustable LED ring light ▲ w/ fiber optic annular ring light ▲ w/ fiber optic dual pipe light | <ul style="list-style-type: none"> ● NZ-PK7-FR ● NZ-PK7-LED ● NZ-PK7-AN ● NZ-PK7-DPL |

MZ7 PK5 WSXGA Camera Systems

- | | | |
|--|--|--|
| Package Contents | Package | Part Number |
| <ul style="list-style-type: none"> ● Micro zoom body ● Gliding boom stand ● CC-WSXGA-CD1 Digital Camera ● Focus mount adapter ● Your choice of lighting | <ul style="list-style-type: none"> ● 22" LCD monitor ● 0.5X video coupler ● Focus mount ▲ w/ fluorescent ring light ▲ w/ adjustable LED ring light ▲ w/ fiber optic annular ring light ▲ w/ fiber optic dual pipe light | <ul style="list-style-type: none"> ● MZ7-PK5-FR-X ● MZ7-PK5-LED-X ● MZ7-PK5-AN-X ● MZ7-PK5-DPL-X |

MZ7 PK2 WSXGA Camera Systems

- | | | |
|---|--|--|
| Package Contents | Package | Part Number |
| <ul style="list-style-type: none"> ● Micro zoom body ● Track stand ● CC-WSXGA-CD1 Digital Camera ● Focus mount adapter ● Your choice of lighting | <ul style="list-style-type: none"> ● 22" LCD monitor ● 0.5X video coupler ● Focus mount ▲ w/ fluorescent ring light ▲ w/ adjustable LED ring light ▲ w/ fiber optic annular ring light ▲ w/ fiber optic dual pipe light | <ul style="list-style-type: none"> ● MZ7-PK2-FR-X ● MZ7-PK2-LED-X ● MZ7-PK2-AN-X ● MZ7-PK2-DPL-X |

Optional - LCD Backlight Illuminator

IL-BL-48



SSZ-II PK9 3.0 Megapixel USB Camera Systems

- | | | |
|--|---|--|
| Package Contents | Package | Part Number |
| <ul style="list-style-type: none"> ● SSZ trinocular body ● Gliding boom stand ● Ring light adaptor ● USB digital camera ● Image capture software ● Your choice of lighting | <ul style="list-style-type: none"> ● 10X eyepieces ● 0.5X objective lens ● Focus mount ● 0.5X video coupler ▲ w/ fluorescent ring light ▲ w/ adjustable LED ring light ▲ w/ fiber optic annular ring light ▲ w/ fiber optic dual pipe light | <ul style="list-style-type: none"> ● SZ-PK9-FR ● SZ-PK9-LED ● SZ-PK9-AN ● SZ-PK9-DPL |

NZ PK9 3.0 Megapixel USB Camera Systems

- | | | |
|---|---|--|
| Package Contents | Package | Part Number |
| <ul style="list-style-type: none"> ● NZ trinocular body ● Gliding boom stand ● Ring light adaptor ● USB digital camera ● Image capture software ● Your choice of lighting | <ul style="list-style-type: none"> ● 10X eyepieces ● 0.5X objective lens ● Focus mount ● 0.4X video coupler ▲ w/ fluorescent ring light ▲ w/ adjustable LED ring light ▲ w/ fiber optic annular ring light ▲ w/ fiber optic dual pipe light | <ul style="list-style-type: none"> ● NZ-PK9-FR ● NZ-PK9-LED ● NZ-PK9-AN ● NZ-PK9-DPL |

MZ7 PK5 3.0 Megapixel USB Camera Systems

- | | | |
|---|---|--|
| Package Contents | Package | Part Number |
| <ul style="list-style-type: none"> ● Micro zoom body ● Gliding boom stand ● USB digital camera ● Focus mount adapter ● Image capture software ● Your choice of lighting | <ul style="list-style-type: none"> ● 0.5X video coupler ● Focus mount ▲ w/ fluorescent ring light ▲ w/ adjustable LED ring light ▲ w/ fiber optic annular ring light ▲ w/ fiber optic dual pipe light | <ul style="list-style-type: none"> ● MZ7-PK5-FR-U ● MZ7-PK5-LED-U ● MZ7-PK5-AN-U ● MZ7-PK5-DPL-U |

MZ7 PK2 3.0 Megapixel USB Camera Systems

- | | | |
|---|---|--|
| Package Contents | Package | Part Number |
| <ul style="list-style-type: none"> ● Micro zoom body ● Gliding boom stand ● USB digital camera ● Focus mount adapter ● Image capture software ● Your choice of lighting | <ul style="list-style-type: none"> ● 0.5X video coupler ● Focus mount ▲ w/ fluorescent ring light ▲ w/ adjustable LED ring light ▲ w/ fiber optic annular ring light ▲ w/ fiber optic dual pipe light | <ul style="list-style-type: none"> ● MZ7-PK2-FR-U ● MZ7-PK2-LED-U ● MZ7-PK2-AN-U ● MZ7-PK2-DPL-U |

Optional - LCD Backlight Illuminator

IL-BL-48

MZ7

MICRO ZOOM
VIDEO INSPECTION LENS

Clarity and high magnification

Detented zoom for repeatable magnification settings and built-in internal focus module are perfect for FOV measurement applications as well as general inspection. Modular design allows you to interchange couplers and objective lenses to vary magnification, field of view, and working distance. The micro zoom body must be used together with a video coupler in order to function properly.



MAC

MACRO ZOOM
VIDEO INSPECTION LENS

Clarity and wide field of view

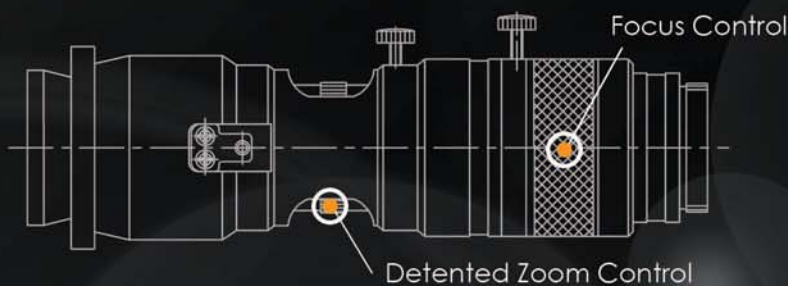
The Navitar® Zoom 7000 is ideal for quality assurance, biomedical imaging, or assembly applications where an easy-to-view, sharp and true-to-life magnified image of your product can mean the difference between a shippable, top-quality end product and a costly manufacturing failure. Most Depth of Field and Field of View available from a video lens with all adjustments at your finger tips.



MZ7-PK5-LED-X package shown. Please see P. 28 for more pre-configured system packages.

Flexible system configuration

A full line of accessories. Video couplers and objective lenses are available to customize your application needs.



MZ7 Lens Specifications

Zoom Range	0.7X - 4.5X
Magnification Range	4.7X-1295.4X
Zoom Ratio	6.5:1
Field of View	0.4mm-91mm
Working Distance	35mm-302mm
Aperture	X
Iris Control	X
Focus/Zoom Control	Manual
Video Mount	C mount
Format	1/2"

* This lens requires video coupler, camera, and/or objective lens to function. Above information is based on range of specifications derived from combination of all accessories.

MAC Lens Specifications

Focal Range	18mm-108mm
Magnification Range	3.7X-61.9X
Zoom Ratio	6:1
Field of View	12.26mm-284mm
Working Distance	177.8mm-304.8mm
Aperture	Manual
Iris Control	Manual
Focus/Zoom Control	Manual
Video Mount	C mount
Format	1/2"

* This lens requires a camera to function.

Large working distance

Up to 12" working distance with close up lens and 24" to infinity without close up lens.

MAC-PK5-AN-U package shown. Please see P. 29, 30 for more pre-configured system packages.

Micro Zoom Video Specifications

Objective Lens	Video Couplers								Working Distance
	0.5X		0.67X		1X		2X		
	MAG	FOV (mm)	MAG	FOV (mm)	MAG	FOV (mm)	MAG	FOV (mm)	
0.25X	6.1x-39.3x	91.4-14.2	8.2x-52.6x	68.2-10.6	12.2x-78.6x	45.7-7.1	24.4x-157.2x	22.9-3.6	302mm
0.5X	12.2x-78.6x	45.7-7.1	16.4x-105.3x	34.1-5.3	24.4x-157.2x	22.8-3.6	48.9x-314.3x	11.4-1.7	176mm
0.75X	18.3x-117.9x	30.5-4.5	24.6x-157.9x	22.7-3.5	36.7x-235.7x	15.2-2.4	73.3x-471.5x	7.6-1.2	117mm
DEFAULT (1X)	24.4x-157.2x	22.8-3.6	32.8x-210.6x	17.1-2.7	48.9x-314.3x	11.4-1.8	97.8x-628.7x	5.7-0.9	96mm
2X	48.9x-314.3x	11.4-1.8	65.5x-421.2x	8.5-1.3	97.8x-628.7x	5.7-0.9	195.6x-1257.3x	2.8-0.4	35mm

*Included in standard packages.

OPTICAL MAGNIFICATION FORMULA

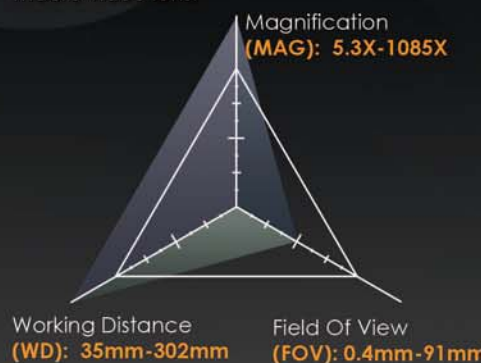
Total Magnification = (Mag. of Eyepieces) X (Mag. of objective zoom range on body) X (Mag. of objective lens)

VIDEO MAGNIFICATION FORMULA

Total Magnification = (Mag. of CCD) X (Mag. of eyepieces) X (Mag. of objective zoom range on body) X (Mag. of objective lens) X (Diagonal display)

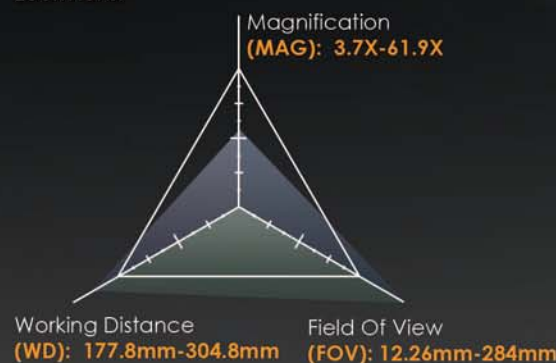
Specification at a glance

Use the graph to compare this unit with macro video lens.



Specification at a glance

Use the graph to compare this unit with micro zoom lens.



Macro Zoom Video Specifications

Working Distance	Optical Specification With Close-Up Lens		Optical Specification Without Close-Up Lens	
	FOV (mm)	Magnification	FOV (mm)	Magnification
7"	124-12.26	9.9x-61.9x	X	X
8"	154.66-15.2	6.2x-28.41x	X	X
9"	185.33-18.26	5.1x-30.5x	X	X
10"	210.66-20.8	4.4x-26.1x	X	X
11"	234.66-23.2	4x-23x	X	X
12"	284-28	3.7x-21.5x	X	X
24"	X	X	406.66-34.32	1.9x-11x
36"	X	X	506.66-49.33	1.2x-5x
48"	X	X	760-74.66	0.9x-5.3x



CC-WSXGA-CD1

2.0 Megapixel VGA CMOS Camera

- 1680 x 1050 resolution @ 30 fps (24-bit)
- 1/2.5" CMOS
- Image Capture without a PC
- VGA output with wide screen format
- Multiple cross hairs for quick gaging
- Auto gain exposure to reduce glare
- Bitmap format captured on SD/USB card



Sensor:	CMOS; 1/2.5"
Resolution:	1680 x 1050 (24Bit), 16:10 Aspect Ratio
Pixel count:	2 mega pixel
Pixel size:	2.8 x 2.8um
Frame rate:	30fps
Color:	RGB (individual adjustment)
White balance:	auto/manual
Exposure:	auto/manual
Contrast:	manual
Capture mode:	manual/trigger
Memory card:	SD/USB 2.0 Dual-Interface 2GB card included
Cross hair grid:	Up to 4 horizontal and 4 vertical (6 color selections)
Lens mount:	C/CS Mount
Power:	5-12VDC; adapter included

SCIENSCOPE
BEST SELLER

On-screen controls

All features of this digital camera can easily be adjusted on-screen via these controls.

- RGB adjustment
- White balance adjustment
- Cross hair grid adjustment
- Auto Exposure

SD/USB2.0 Memory Card

Dual interface memory card allows you to conveniently transfer files without the need of a SD card reader on your PC.



Remote Shutter Release

CC-XGA-CD4

1.3 Megapixel VGA CMOS Camera

- 1280 x 1024 resolution @ 25 fps, VGA output
- 1/2.5" CMOS
- Wireless remote control
- USB2.0 thumb drive interface for data storage
- Stored image review w/ Cross hair generator
- Image capture (RAW), IC150 Software required to convert from RAW to JPG



Sensor:	CMOS; 1/2"
Pixel count:	1.3 mega pixel
Resolution:	1280 x 1024, SXGA
Output Interface:	VGA output
Frame rate:	25fps
SNR:	45dB
Lens mount:	C/CS
Memory Extension:	USB 2.0 port (2GB or below)
Control function:	Wireless Remote Control (R.G.B., Gain, Cross Hair Generator, Exposure, Image Freeze, Image Mirror, Stored Image Review)
Power:	6VDC; 2.1W; adapter included

USB Storage Interface

On board USB storage interface allows you to store RAW image data onto a memory card.

Optional IC150/250 software is needed to convert RAW file to other file extensions such as JPG.



IR Remote Control

Control function: (R.G.B., Gain, Cross Hair Generator, Exposure, Image Freeze, Image Mirror, Stored Image Review)



CC-USB-CD3

3.0 Megapixel High-Resolution USB CMOS Camera

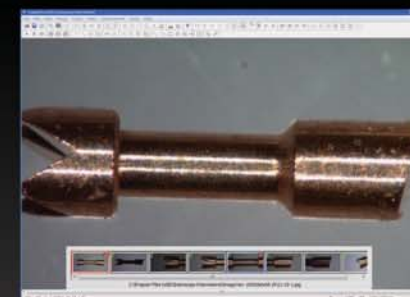
- Image capture
- USB2.0 digital interface
- For C/CS mount optical devices
- Video enhancement software included
- 2048 x 1536 resolution @ 11 fps
- 1/2" CMOS



Sensor:	CMOS; 1/2"
Pixel count:	3 mega pixel
Resolution:	2048 x 1536
Pixel size:	3.2 x 3.2 um
Interface/Power:	USB 2.0
Frame rate:	11 fps
Dynamic range:	61 dB
S/N ratio:	43 dB
Sensitivity:	1.0V/lux.sec @ 550nm
Shutter:	Manual/Auto (1~500ms), Field of Interest selectable
Color mode:	User adjustable RGB color
Lens mount:	C/CS Mount
Computer:	Pentium 4 or better, XP or Vista, 1GB RAM recommended
Software:	Image capture software included

OPTIONAL SOFTWARES

IC-150 Image Capture Software For CC-XGA-CD4 Camera



- Capture images
- Image comparison
- Converts Raw data to JPG or Bitmap
- Basic annotation

SYSTEM REQUIREMENT

Operating System:	XP or newer
Interface:	USB 2.0
Ram:	2 G or up
Processor:	Pentium 4 or up
Min. video display:	1024 x 768
Free hard drive space:	2G

CC-USB-CD5

5.0 Megapixel High-Resolution USB CMOS Camera

- Image capture
- USB2.0 digital interface
- For C/CS mount optical devices
- Video enhancement software included
- 2592 x 1944 resolution @ 7 fps
- 1/2" CMOS



Sensor:	CMOS; 1/2"
Pixel count:	5 mega pixel
Resolution:	2592 x 1944
Pixel size:	2.2 x 2.2 um
Interface/Power:	USB 2.0
Frame rate:	7 fps
Dynamic range:	66.5 dB
S/N ratio:	40.5 dB
Sensitivity:	0.53V/lux.sec @ 550nm
Shutter:	Manual/Auto (1~500ms), Field of Interest selectable
Color mode:	User adjustable RGB color
Lens mount:	C/CS Mount
Computer:	Pentium 4 or better, XP or Vista, 1GB RAM recommended
Software:	Image capture software included

IC-250 Advanced Measurement Software



- Basic measurement includes line lengths, circle diameters, and angles within Field of View
- Annotation
- User Selectable units: inch or metric
- Easy Calibration and image comparison

SYSTEM REQUIREMENT

- Same as IC-150