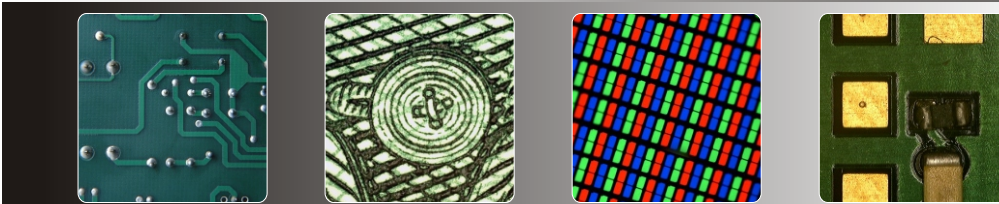




## Total Solutions in Micro Visuals



### PARALLEL ZOOM MICROSCOPE

Parallel Optical Path Design

High magnification and large zoom ratio

High-eyepoint eyepieces and Adjustable Parallel Binocular

Widely used in teaching, research, and electronic testing and assembly industry

## PARALLEL ZOOM STEREO MICROSCOPE



Series Parallel Zoom Stereo Microscope

Adopt the Design of Parallel Optical, the clear images through the whole range of the FOV. There is no uncomfortable under long time viewing and easy to produce eyestrain; Ergonomic design, the angle of binocular tube is adjustable to avoid fatigue and injury to users; All components adopt modular design, the modular design is easy and flexible combination based on users requirements; With the vast majority of the existing general-purpose microscope accessories, reduce the use of cost and ease to upgrading for the user; Widely used in teaching, research, and electronic testing and assembly industry.

### Features:

- Building-block structure: In the main optical path can be access to photography, video, coaxial illumination drop-shot easily. Shared objective, eyepiece, lighting systems and support device serialization configuration, flexible and convenient to replace them.
- Parallel optical system: The left and right optical path is parallel in this system, shared use of non-coaxial lens imaging technology, optical interface coated broadband antireflection coating. Therefore, which have the following characteristics:
  1. Elimination of the "imaging plane is not vertical-axis" phenomenon, so that the edge definition field be enhanced to centers.
  2. Large Field of View.
  3. Large stereo view angle, strong stereo vision, under lens operating is accurate positioning.
  4. Imaging surface structure clearly demarcated, lifelike color reproduction.
  5. Parallel Optical System, which extend two eyes on the focal point in the optical design for a long time use of the eyes feel comfortable, not easy to produce eyestrain.
- Control unit: The design of figuration and control unit full use of ergonomic principles and parameters, zoom and focus unit adopt rolling friction devices and reasonable rail structure that makes operation smart and easy, reliable positioning.
- Optional variable angle viewing head, reduce the eyestrain produced by operation and observation under the lens.
- The eyepiece with the appropriate adjustable unit, when the eyepiece is set within a reticle and the pointer, as the position fixed, the rotation will not occur.

Specifications	SZ-6060	SZ-6080	SZ-6100
◇ Zoom Range of Zoom Body: 0.8X-5X; 0.8X-6.5X; 0.8X-8X			◇ Zoom Ratio: 1:6.3; 1:8; 1:10
◇ Max. Optic Magnification: 2.4X-250X/ (1:6.3 Parallel Zoom Body); 2.4X-325X/ (1:8 Parallel Zoom Body); 2.4X-400X/ (1:10 Parallel Zoom Body)			◇ Field of View: 1.1mm-100mm/ (1:6.3 Parallel Zoom Body); 0.85mm-100mm/ (1:8 Parallel Zoom Body); 0.69mm-100mm/ (1:10 Parallel Zoom Body)
◇ Eyetube Inclination: 20°; 0°-35°			◇ Working Distance: 32.5mm-280mm
◇ Interpupillary Adjustment: 55mm-75mm			◇ Eyepiece Diopter Correction: ±5 Diopter
◇ Optional Adjustable Eyepieces: 10X, 15X, 20X and 25X.			◇ Optional Auxiliary Lenses: 0.3X, 0.5X, 1X and 2X.



- ① Parallel Zoom Body (1:8; 1:10; 1:6.3)
- ② 20° Parallel Binocular
- ③ 0°-35° Adjustable Parallel Binocular

- ④ True-Trinocular Image Port
- ⑤ Eyepieces
- ⑥ Objective Lens

- ⑦ Coupler Adapter

## Optical Datasheet

### SZ-6060 1:6.3 Parallel Zoom Body

Objective Lens	Working Distance (mm)	Eyepieces							
		10X(Φ24mm)		15X(Φ16mm)		20X(Φ12mm)		25X(Φ11mm)	
		Mag.	FOV (mm)	Mag.	FOV (mm)	Mag.	FOV (mm)	Mag.	FOV (mm)
0.3X	280	2.4X-15X	100-16	3.6X-22.5X	66.7-10.67	4.8X-30X	50-8	6X-37.5X	45.8-7.33
0.5X	126	4X-25X	60-9.6	6X-37.5X	40-6.4	8X-50X	30-4.8	10X-62.5X	27.5-4.4
1X	78	8X-50X	30-4.8	12X-75X	20-3.2	16X-100X	15-2.4	20X-125X	13.75-2.2
2X	32.5	16X-100X	15-2.4	24X-150X	10-1.6	32X-200X	7.5-1.2	40X-250X	6.88-1.1

### SZ-6080 1:8 Parallel Zoom Body

Objective Lens	Working Distance (mm)	Eyepieces							
		10X(Φ24mm)		15X(Φ16mm)		20X(Φ12mm)		25X(Φ11mm)	
		Mag.	FOV (mm)	Mag.	FOV (mm)	Mag.	FOV (mm)	Mag.	FOV (mm)
0.3X	280	2.4X-19.5X	100-12.3	3.6X-29.3X	66.7-8.2	4.8X-39X	50-6.15	6X-48.75X	45.8-5.64
0.5X	126	4X-32.5X	60-7.4	6X-52X	40-4.9	8X-65X	30-3.7	10X-81.25X	27.5-3.38
1X	78	8X-65X	30-3.7	12X-97.5X	20-2.5	16X-130X	15-1.85	20X-162.5X	13.75-1.69
2X	32.5	16X-130X	15-1.85	24X-195X	10-1.23	32X-260X	7.5-0.9	40X-325X	6.88-0.85

### SZ-6100 1:10 Parallel Zoom Body

Objective Lens	Working Distance (mm)	Eyepieces							
		10X(Φ24mm)		15X(Φ16mm)		20X(Φ12mm)		25X(Φ11mm)	
		Mag.	FOV (mm)	Mag.	FOV (mm)	Mag.	FOV (mm)	Mag.	FOV (mm)
0.3X	280	2.4X-24X	100-10	3.6X-36X	66.7-6.67	4.8X-48X	50-5	6X-60X	45.8-4.58
0.5X	126	4X-40X	60-6	6X-60X	40-4	8X-80X	30-3	10X-100X	27.5-2.75
1X	78	8X-80X	30-3	12X-120X	20-2	16X-160X	15-1.5	20X-200X	13.75-1.38
2X	32.5	16X-160X	15-1.5	24X-240X	10-1	32X-320X	7.5-0.75	40X-400X	6.88-0.69

## Recommendation

Note: Displayed items are optional. (●Inclusion; ○Exclusion)



### Select different illuminator

P/N	Illuminator	311101 Fiber Optic Illuminator	
		321401 Annular Ring Light Guide	322101 Dual Pipe Light Guide
1082-40-AN/ 1082-40T	-AN	●	○
1082-40-DPL/ 1082-40T	-DPL	○	●



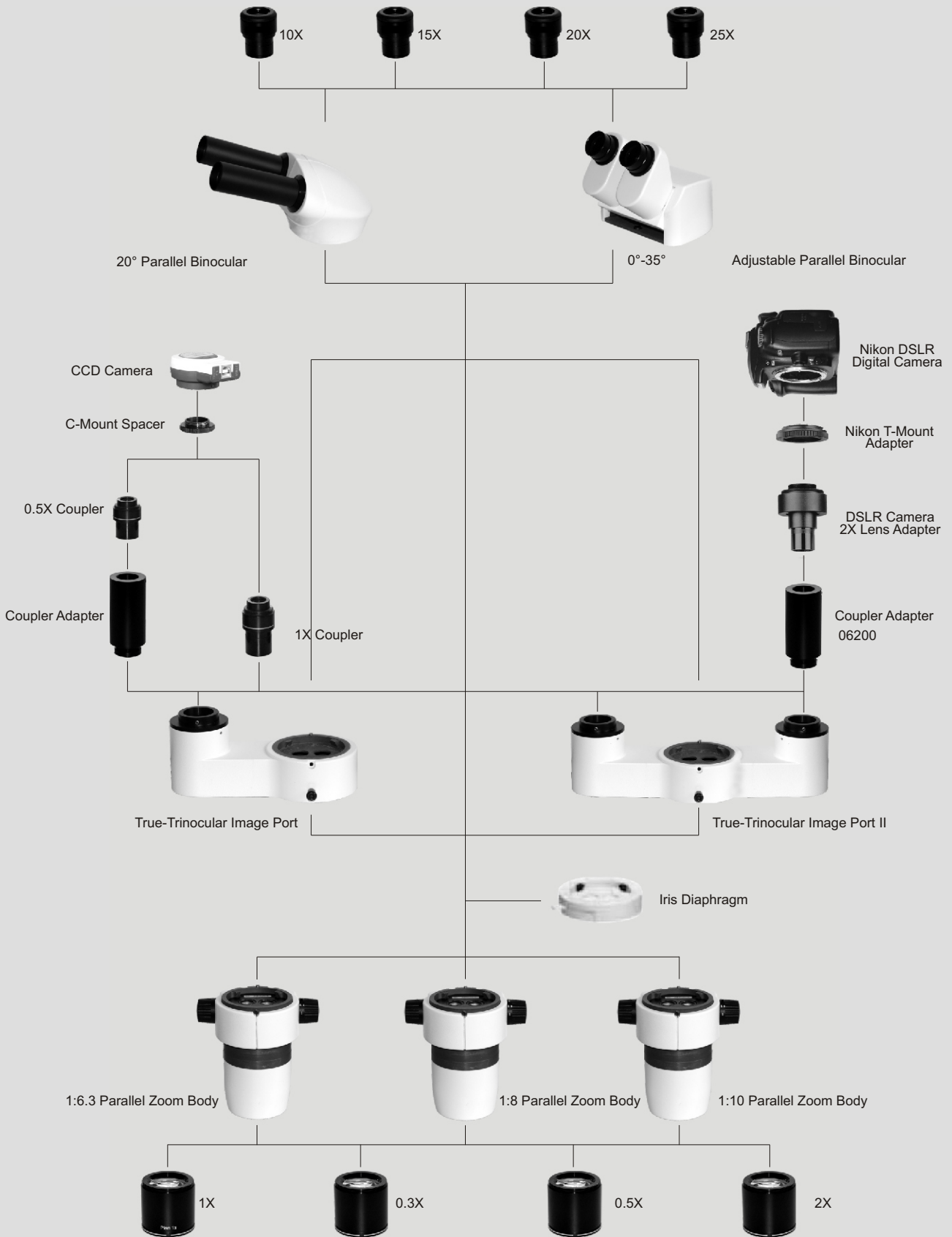
Select different illuminator				
P/N	Illuminator		311101 Fiber Optic Illuminator	
			321401 Annular Ring Light Guide	322101 Dual Pipe Light Guide
1	102-200-AN/ 1	102-200T-AN	●	○
1	102-200-DPL/ 1	102-200T-DPL	○	●



Select different illuminator				
P/N	Illuminator		311101 Fiber Optic Illuminator	
			321401 Annular Ring Light Guide	322101 Dual Pipe Light Guide
1	102-200-DPL/ 1	102-200T-DPL	●	○
1	102-200-DPL/ 1	102-200T-DPL	○	●

Picture Preview	P/N	Name	Description
	01 101	1:6.3 Parallel Zoom Body	Series Parallel Zoom Stereo Microscope, Zoom range 0.8X-5X, zoom ratio 1:6.3, with two horizontal zoom knobs.
	01 102	1:8 Parallel Zoom Body	Series Parallel Zoom Stereo Microscope, Zoom range 0.8X-6.5X, zoom ratio 1:8, with two horizontal zoom knobs.
	01 103	1:10 Parallel Zoom Body	Series Parallel Zoom Stereo Microscope, Zoom range 0.8X-8X, zoom ratio 1:10, with two horizontal zoom knobs.
	02101	20° Parallel Binocular	20° Parallel Binocular Head. For series Parallel Zoom Stereo Microscope.
	02102	0°-35° Adjustable Parallel Binocular	0°-35° Adjustable Parallel Binocular Head. For series Parallel Zoom Stereo Microscope.
	03101	10X Adjustable Eyepieces (Pair)	Wide Field 10X Eyepieces, with adjustable eyepiece diopter correction, 24mm field of view, the tube outside dia. 30mm. For Series of Stereo Microscopes.
	03102	15X Adjustable Eyepieces (Pair)	Wide Field 15X Eyepieces, with adjustable eyepiece diopter correction, 16mm field of view, the tube outside dia. 30mm. For Series of Stereo Microscopes.
	03103	20X Adjustable Eyepieces (Pair)	Wide Field 20X Eyepieces, with adjustable eyepiece diopter correction, 12mm field of view, the tube outside dia. 30mm. For Series of Stereo Microscopes.
	03104	25X Adjustable Eyepieces (Pair)	Wide Field 25X Eyepieces, with adjustable eyepiece diopter correction, 11mm field of view, the tube outside dia. 30mm. For Series of Stereo Microscopes.
	04101	1X Objective Lens	Plan achromatic design, N.A. 0.09, outside dia. 60mm, working distance 78mm, for Parallel Stereo Zoom Microscope.
	04102	0.3X Objective Lens	Achromatic achromatic design, N.A. 0.03, outside dia. 60mm, working distance 280mm, for Parallel Stereo Zoom Microscope.
	04103	0.5X Objective Lens	Plan apochromat design, N.A. 0.05, outside dia. 60mm, working distance 126mm, for PZ4 Parallel Stereo Zoom Microscope.
	04104	2X Objective Lens	Plan achromatic design, N.A. 0.2, outside dia. 60mm, working distance 32.5mm, for Parallel Stereo Zoom Microscope.
	05101	True-Trinocular Image Port	For Series of Parallel Zoom Stereo Microscope.
	05201	True-Trinocular Image Port II	For Series of Parallel Zoom Stereo Microscope.
	06101	0.5X Coupler	For Series of Parallel Zoom Stereo Microscope.
	06102	1X Coupler	For Series of Parallel Zoom Stereo Microscope.
	06200	Coupler Adapter	For Series of Parallel Zoom Stereo Microscope.
	08101	Iris Diaphragm	For Series of Parallel Zoom Stereo Microscope.

# Series System Diagram





### High-eyepoint eyepieces with built-in diopter adjustments

All eyepieces are the high eyepoint-type and have a wide field of view; for example, the standard 10X eyepiece has a field of view (F.O.V.) of  $\Phi$  24mm. In addition, these eyepieces have built-in diopter adjustment, so the image and the reticle are brought into focus at the same time, making viewing easy, while reducing eyestrain.



20° Parallel Binocular

Parallel Zoom  
(1:8; 1:10)

Objective Lens

### Eyepiece tube inclination of 20°

The standard binocular eyepiece tube is inclined 20°, allowing you to observe samples without having to lean forward. This reduces fatigue during long hours of operation by reducing strain on your neck, shoulders, and back.

### High magnification and large zoom ratio

For use at high magnifications, the have a large 10X zoom ratio, extending from 0.8X to 8X. This gives you a total magnification from 2.4X to 400X, depending on the combination of eyepiece and objective. The zooming knob features clickstops, eliminating the need to remove your eyes from the eyepiece while changing magnification.



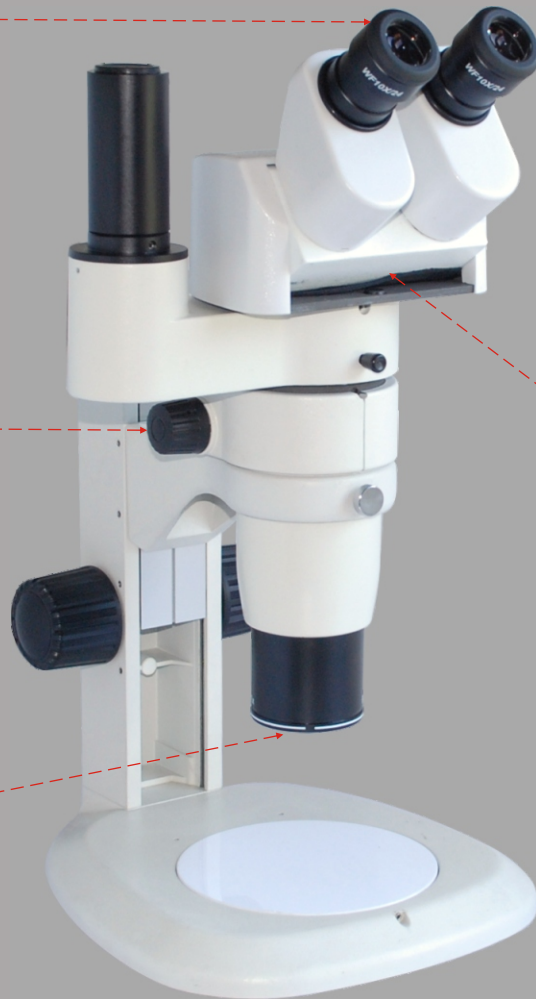
Iris Diaphragm



Adjustable Eyepieces



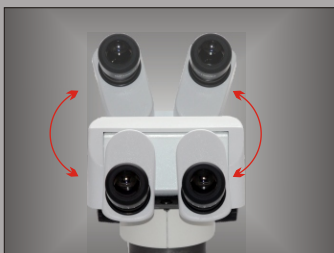
Nosepiece Body  
(0; 1:6.3)



0°-35° Adjustable Parallel Binocular

#### Observation at the optimum eyepoint

In addition to the standard type, you have the option of using a low eye-level or tilting binocular eyepiece tube. The low eye-level binocular eyepiece tube enables comfortable observation even when using a diascope stand or when an intermediate tube is inserted. The tilting binocular eyepiece tube allows adjustment of the eyepiece inclination between 0° and 35° and the eye level can be adjusted 157mm (6.2") by swinging the eyepieces up 180° as well as tilting them. You can even add eye-level risers to customize your microscope to your height-up to three risers for a total of 75mm.



The tilting binocular eyepiece tube allows continuous adjustment of the eyepiece inclination from 0° to 35°. You can also adjust the eye level a maximum of 157mm (6.2") by swinging the eyepieces up 180° and tilting them.