# imall

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



### Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832 Email & Skype: info@chipsmall.com Web: www.chipsmall.com Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China















### **Products:** for Optical Inspection, Assembly and Field Services

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# About AVEN

With a product line that features more than 750 tools for optical inspection and precision assembly, Aven, Inc. has made a name for itself as a leading precision technology provider.

When Aven was founded in 1983, our objective focused on the importing and wholesaling of specialty tools. As the business evolved, we expanded our product portfolio to include more high technology tools, thus allowing us to engage in new market segments. In 1997, Aven underwent its first progression, shifting from traditional workbench tools to industrial electronics supplies. We then turned our focus to precision tools for optical inspection and precision assembly.

Today, Aven's product line includes stationary and portable microscopes, video inspection systems, specialty high-resolution digital and video cameras, lenses, illuminated magnifiers, software for image analysis and tools for precision assembly.

# The **AVEN** Advantage

While we offer a broad product line of optical inspection equipment components, Aven's true value to customers is realized in our positioning as a full-service technology provider.

As a result of years of comprehensive research and development, Aven has expanded its expertise in the realm of design and customized configuration of advanced video inspection systems. Our solutionbased experts possess the ability to recommend and create complete optical systems according to customer's needs and budgets. We also develop new products based on the specifications of our customers.

To form a clearer understanding of our customers and their needs, Aven's specialists make on-site visits to evaluate client's testing and/or quality control stations. Based on the findings, we are able to recommend application improvements and demonstrate the latest advances in testing equipment technology.

A highly experienced sales staff and our diverse and extensive product mix allow us to meet the needs of the optical measurement and electronic equipment markets. Aven also provides a variety of ancillary services such as product assembly, custom parts and tooling, and distribution, all of which are coordinated from our Michigan headquarters.

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From the world's first compact portable microscope to tools that are as simple as "plug and play," Aven's iSeries line of digital microscope technology offers a variety of functions and capabilities that are applicable to a number of industries.

The iSeries product line includes:

### **iLo**upe

The world's first compact portable field microscope/camera combination with zoom capability of up to 150x.

### i360

A 3-D microscope featuring enhanced viewing capabilities, including a 360-degree rotational view and oblique viewing angles up to 55 degrees.

### **iG**auge

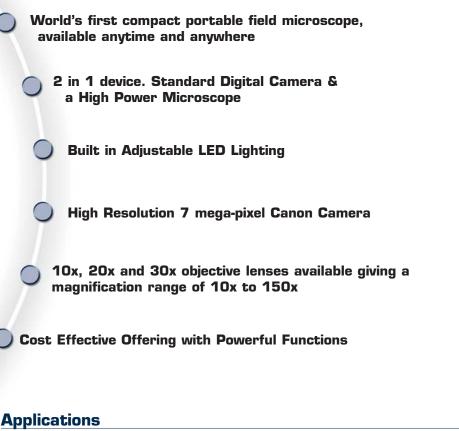
Video imaging and measurement software that enables the user to measure, annotate and analyze images with just a few clicks.





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 Applications

 QC Inspection
 Medical
 Archaeology,

 Research
 Forensics
 Forestry and Much More

 Image: Complex Structure
 Image: Complex Structure
 Image: Complex Structure

 Image: Complex Structure
 Image: Complex Structure
 Image: Complex Structure

Visit www.aveninc.com to see more images taken with the iLoupe.

Aven Inc. | 4595 Platt Road | Ann Arbor, MI 48108 Tel: 734-973-0099 | Fax: 734-973-0097 | www.aveninc.com The first compact portable field microscope utilizes a digital camera with a patented module and specially designed lenses with built in high intensity adjustable LED Lights. The iLoupe can clearly capture objects from 6mm to 10 microns. This 2 in 1 device allows you to quickly interchange between a standard digital camera and a microscope. You can now carry a portable field microscope and a digital camera in your pocket with ease. Three objective lenses are available to meet a variety of different applications. Using the optical and digital zoom range of the camera the following magnification ranges are produced:

### With the 10x objective lens: 10x to 60x With the 20x objective lens: 20x to 100x With the 30x objective lens: 30x to 150x

The iLoupe is available in Starter Pack and Pro Pack Versions. The iLoupe Starter Pack includes the Canon Camera with the Adapter Ring, Module and a 10x-60x Objective Lens. The iLoupe ProPack includes the Canon Camera with the Adapter Ring, Module and three objective lenses (10x-60x), (20x-100x) and (30x-150x). Both the Starter Pack and Pro Pack are supplied in a Plastic Carrying Case.

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# iLoune Accessories



iLoupe Carrying Case 26700-506



iLoupe Stand 26700-505



### Specifications

	iLoupe Starter Pack	iLoupe Pro Pack	
Objective Lenses included	10x	10x, 20x, and 30x	
Magnification Range	10x -60x	10x-150x	
Field of View	10x: 16x12mm, 20x: 9x6.5mm, 30x: 5.7x4.5mm		
Lens Design	Schott No-Lead Optical Grade Glass		
Coating	Multi-Layer Anti-Reflective Coating		
Built in Dimmable Illumination	4 White LED Lights		
Batteries	Two Li-ion Rechargeable Batteries Included		

Order #	Description		
26700-5015	iLoupe Starter Pack w/ Plastic Carrying Case		
26700-501P	iLoupe Pro Pack w/ Plastic Carrying Case		
26700-505	iLoupe Stand		
26700-506	iLoupe Carrying Case		
26700-501-10	Replacement Lens 10x-60x		
26700-501-20	Replacement Lens 20x-100x		
26700-501-30	Replacement Lens 30x-150x		

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**3D 360** degree rotational view with a 45 degree oblique viewing angle.

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Series

Zoom 50x-300x with great depth of field

Built in LED lighting with intensity control

Rotate clockwise or counter clockwise

Ideal for SMT, Semiconductor IC, Medical Devices, Research and Failure Analysis i360 3D Microscope is designed to give you a 3D perspective with rotation to your inspection process. The user can now view the specimen from all angles without having to move it. This helps reduce evaluation times and improves the QC process.

i360 also comes with our optional PC Link software that allows for image capture and measurement. It can also be connected directly to a PC with our optional USB Camera. Our USB Camera comes with our Infinity Analyze Imaging Software. Infinity analyze allows you to quickly and easily process images which can be entered into an archive application or saved in a variety of formats. Measurements and annotations are easy to perform, highly reproducible and can be customized to your needs.

i360 standard version comes with a 50x-300x lens with a 45 degree oblique viewer, high resolution analog color CCD Camera with BNC and S-Video Outputs, Control Box for controlling the LED light intensity, rotation (i.e. counter clockwise or clockwise), and rotational speed, 15" color flat panel monitor, and stand with focusing control. All cables and adapters are also included.

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### **i360** Optional Accessories

USB Cameras with 1.4 and 2.0 megapixel resolution

USB Video Link with Software for image capture, processing and archiving

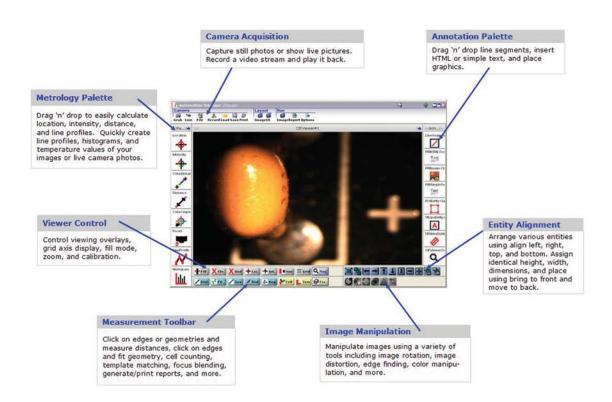


i360 Dimensions: Base - 13"x13" Height - 16 1/4"

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Specifications Magnification Range		50x-300x		
Lighting		LED with Intensity Control		
Camera		1/3″ CCD Color Camera		
Working Disto	ince	- 55.5mm		
Depth of Field		8mm to 1.2mm		
Field of View		9.2mm to 1.3mm		
Order #	Deacr	iption		
26700-106-10	<b>i360 3D Micro</b> Controller, Stand v	<b>i360 3D Microscope</b> with 45 degree Viewer, 1/3" CCD Color Camera Controller, Stand with Focus Control, and 15" Flat Panel Color Monitor.		
26700-106-14	Pixel Camera wi	<b>i360 3D Microscope</b> with 45 Degree Viewer, USB 1.4 Mega Pixel Camera with Infinity Analyze Imaging Software, Controller, Stand with Focus Control		
26700-106-20		Same as 26700-106-14 USB 1.4 Megapixel Camera replaced with our USB 2.0 Megapixel Camera		
26100-403	<b>USB Video Link with Software</b> for Image Capture, Processing and Archiving for use with our Analog CCD Camera. Basic measurement functions are included.			

# iGauge Video Imaging and Measurement Software



iGauge allows you to measure, annotate and analyze your images with just a few clicks. iGauge will dramatically increase the capability of any video camera based system. Test Drive iGauge by downloading a 30 day trial version from our website www.aveninc.com

### SIMPLE AND EASY TO USE

Features:

- Image Capture, Record & Playback
- Viewing Tools
- Toolbar Geometry/Metrology
- Geometry Tools
- Annotation Tools
- Metrology Tools
- Image Processing Tools
- Reporting Tools
- Image Manipulation Tools
- Intuitive Interface

#### Order # Description

26100-405

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Series

iGauge Video Software

# **Video Inspection Systems**

Aven's Video Inspection Systems can be used for several applications, including inspection, defect analysis and quality assurance. Our products feature a wide range of lenses, cameras, lighting options, video capture cards and stands to enable us in creating a custom solution for you.

This product line includes:

### Aven Micro Zoom Systems Designed for high magnification and high resolution applications.

### Aven Macro Zoom Video Inspection Systems Designed for large field of view applications.

Aven Micro and Macro Systems now feature our NEW **miniVue** high resolution color camera with instant image capture and a built-in 2" high resolution LCD Screen.

Create Your Own Custom System @ www.aveninc.com





### Aven Micro Zoom Video Inspection System VIS-6000

Create Your Own Custom System @ **www.aveninc.com** 



### Designed for high magnification and high resolution applications

Modular design allows you to vary magnification, field of view, and working distance

Easily upgradeable

Magnification Range: 10x–67x (with 0.5x adapter and auxilary lens) (20x–134x with the 0.5x lens removed)

Working Distance: 143mm (5.6") to 187mm (7.36") (81-93mm with the 0.5x lens removed)

Field of View: 34.32mm (1.35") to 5.32mm (0.2") (17.16–2.67mm with the 0.5x lens removed)

 miniVue 3.1 megapixel camera with instant image capture on built-in SD card and 2" high resolution LCD screen.
 Connect to a PC via USB, as well as to a larger LCD Monitor for detailed viewing

Order # 26700-102-00 Description

**VIS 6000** with Zoom 6000 lens, 0.5x adapter tube and auxilary lens, miniVue Camera and 150 watt FOI with Ring Light. Mounted on the Ergo Stand with 11"x18" base. With our miniVue camera, images can be saved directly onto a SD Card.

### **Applications**

Inspection of a wide range of objects such as integrated circuits, solder joints, surface analysis, quality control and laboratory inspection.

#### Customization

A variety of adapters & auxiliary lens, cameras, lighting options, video capture cards, and stands are available to provide a custom solution.

#### **Magnification Range**

2x to 2735x possible. Call for more information.

#### **High Accuracy Measurement**

Detented Lenses are available for high accuracy measurements.

#### 12x Zoom Lenses

For customers requiring the highest combination of zoom range and resolution. Visit www.aveninc.com for more information.



Micro Zoom Video Inspection System on Articulating Arm 26700-102-15

### Specifications



Micro Zoom Video Inspection System on Boom Stand 2700-102-10

Lens Attachment	Mag/Field of View (mm)	.5x /	Adapter	1x /	Adapter	2x /	Adapter	5x /	Adapter
		Low	High	Low	High	Low	High	Low	High
0.25x	Magnification	5x	33x	10x	67x	21x	134x	52x	329x
	Field of View	68.64	10.64	34.32	5.32	17.16	2.66	6.88	1.08
0.5x	Magnification	10x	67x	21x	133x	41x	267x	104x	671 x
	Field of View	34.32	5.32	17.16	2.67	8.58	1.33	3.43	0.53
0.75x	Magnification	16x	100x	31x	200x	62x	400x	155x	1016
	Field of View	17.16	2.67	8.58	1.33	4.29	0.67	1.72	0.27
None	Magnification	21x	133x	41x	267x	83x	531x	207x	<b>1317</b>
	Field of View	17.16	2.67	8.58	1.33	4.29	0.67	1.72	0.27
1.5x	Magnification	31x	200x	62x	400x	124x	808x	312x	1976
	Field of View	11.43	1.78	5.72	0.89	2.86	0.44	1.14	0.18
2x	Magnification	41x	267x	83x	531x	165x	1078x	413x	2735
	Field of View	8.58	1.33	4.29	0.67	2.15	0.33	0.86	0.13

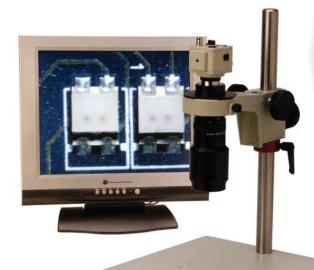
\* Note magnification data calculated based on 1/3" CCD camera and a 15" LCD Monitor.

	Ordar #	Description
	26700-102-10	<b>VIS 6000</b> – Same system as 2700-102-00 but mounted on a Dual Arm Ball Bearing Stand with a 1.3 Megapixel USB Camera with Image Capture and Measurement Software. <i>Monitor not Included</i> .
* Systems 26700-102-10 and 26700-102-15 can also be ordered with our new miniVue Camera. Go to www.aveninc.com to configure a system.	26700-102-15	<b>VIS 6000</b> – Same system as 2700-102-10 but mounted on an Articulating Arm with Mounting Clamp. <i>Monitor not Included.</i>

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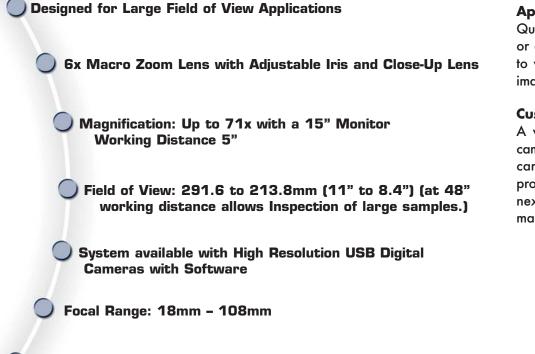


VI Svstems



# Aven Macro Zoom Video Inspection System

Create Your Own Custom System @ **www.aveninc.com** 



Working Distance: 5" – 12" with Close Up Lens, 24" to Infinity without close-up lens

### Applications

Quality Assurance, biomedical imaging or assembly applications where an easy to view, sharp and true-to-life magnified image is required.

### **Customization**

A variety of adapters & auxiliary lens, cameras, lighting options, video capture cards, and stands are available to provide a custom solution. See chart on next page for more information on magnification and FOV ranges possible.

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**VI Systems** 



Macro Zoom Video Inspection System on Boom Stand 2700-103-00

### Specifications

w/Close-Up Lans	Working Distance	FOV(mm) @ Low Mag.	FOV(mm) @ High Mag.	Magification Range
	5″	25.9x19.4	4.3x3.2	12x - 71x
	7″	38.9x29.2	6.5x4.9	8x - 47x
	8″	45.5x34	7.6x5.7	7x - 40x
	10″	58.3x43.7	9.7x7.3	5x - 31x

w/o Close-Up Lens	Working Distance	FOV(mm) @ Low Mag.	FOV(mm) @ High Mag.	Magification Range
	24″	136.1x97.2	22.7x21.1	2x - 13x
	36″	213.8×155.5	35.6x25.9	1.5x - 9x
	48″	291.6x213.8	48.6x35.6	1x - 6x

Order #	Description
26700-103-00	<b>6x Macro Lens</b> mounted on a SS Dual Arm Ball Bearing Boom Stand, 1/3" CCD Camera, 15" LCD Monitor, PC Link Device and Software for Image Capture.

\* Please note, in most applications additional illumination is not required for this lens system.



Our stereo zoom and stereo microscopes are manufactured exclusively for Aven by Carton Optical of Japan. Carton Optical has been manufacturing microscopes for over 40 years. Their microscopes have gained a reputation for providing the very best in optical performance, durability, and versatility. With a diverse selection of bodies, stands, and lighting techniques a system can be configured to fit any application.

### To configure your system select:

- The microscope body that meets your magnification, field of view and working distance requirements. Note with a combination of eyepieces and auxiliary lens you can tailor a system to meet your requirements.
- 2. Focusing Mount.
- Stand (please take into account the working distance and the height of the stand).
- Illumination Fiber Optic, Fluorescent or LED.
- 5. Camera and or adapter if you are using a trinocular body.
- 6. Monitor if necessary.

#### All stereo zoom bodies feature:

- Crisp high resolution precision optics that provide an erect, non-reversed stereoscopic image.
- Binocular eyepieces inclined at 45 degrees for fatigue free viewing.
- Diopter adjustments on both eyepieces.
- Interpupilary distance adjustment 52mm to 75mm.
- Body can be rotated a full 360 degrees and locked in any position.
- Trinocular zoom bodies feature a beamsplitter. When engaged 100% of the light from the left optical path is directed to the phototube. The image can still be viewed through the right eye tube.

Configure Your Own Custom Microscope System @ www.aveninc.com

Stereo Zoom Microscopes

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# SPZ-50 Series

Outstandingly large zoom ratio 7.46:1-best zoom ration in this class

Magnification range: 6.7x to 50x

Field of View 34.3mm to 3.6mm (1.35" to 0.14")

Working distance 108mm (4.25") - the best in this class

Magnification range of 2.25x to 200x with optional lenses

17mm (0.67") high eye point wide field 10x eyepieces (field number 23) for comfortable viewing even for operators with eyeglasses.

Trinocular version has diopter adjustment on vertical tube for fine focusing of image

\* Note specifications mentioned above are with Wide Field 10x eyepieces.



# Stereo Zoom Microscopes

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SPZ-50

Binocular stereo zoom body with 10x eyepieces, rubber eye guards and dust cover

### **Optical Data**

**Field of View** 

17-2.2mm

Eyepiece	DHW10X (F.N. 23)				
Auxiliary Lens	Nil	w/0.5x	w/0.75x	w/1.6x	w/2x
Magnifications	6.7x-50x	3.35x-25x	5x-37.5x	10.72x-80x	13.4x-100x
Working Dist.	108mm	240mm	132mm	50mm	41mm
Field of View	34.3-4.6mm	68.9-9.2mm	45.7-6.1mm	21.4-2.8mm	17.1-2.3mm
Eyepiece	DHW15X (F.N.15)				
Auxiliary Lens	Nil	w/0.5x	w/0.75x	w/1.6x	w/2x
Magnifications	10.05x-75x	5.02x-37.5x	7.53x-56.25x	16.08x-120x	20.1x-150x
Working Dist.	108mm	240mm	132mm	50mm	41mm
Field of View	22.3-3mm	44.7-6mm	29.8-4mm	16-1.8mm	11.1-1.5mm
Eyepiece	DHW20X (F.N. 11.4)				
Auxiliary Lens	Nil	w/0.5x	w/0.75x	w/1.6x	w/2x
Magnifications	13.4x-100x	6.7x-50x	10.05x-75x	21.44x-160x	26.8x-200x
Working Dist.	108mm	240mm	132mm	50mm	41mm

22.6-3mm

10.6-1.4mm

8.5-1.1mm



Trinocular stereo zoom body with 10x eyepieces, rubber eye guards and dust cover

Order #	Description
SPZ-50	SPZ-50 Binocular
SPZT-50	SPZT-50 Trinocular

34-4.5mm



# DSZ-44 Series

# Stereo Zoom Microscopes

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### DSZ-44

Binocular stereo zoom body with 10x wide field eyepieces, Rubber eye guards and dust cover

### Zoom Ratio of 4.4:1

Magnification range: 10x to 44x

Field of View of 23mm to 5.3mm (0.90" to 0.20")

Working distance 90mm (3.54")

Magnification range of 2.5x to140.8x with optional lenses

### Wide Field 10x Eyepieces (field number 23)

\* Note specifications mentioned above are with Wide Field 10x eyepieces.



Trinocular stereo zoom body with 10x wide field eyepieces, Rubber eye guards and dust cover

### **Optical Data**

Eyepiece	DSW5X (F.N. 22.5)			
Auxiliary Lens	Nil	w/0.5x	w/0.75x	w/1.6x
Magnifications	5x-22x	2.5x-11x	3.75x-16.5x	8x-35.2x
Working Dist.	90mm	150mm	105mm	45mm
Field of View	22.5-5.1mm	45-10.2mm	30-6.8mm	14-3.1mm
Eyepiece		DSW1	OX (F.N. 23)	
Auxiliary Lens	Nil	w/0.5x	w/0.75x	w/1.6x
Magnifications	10x-44x	5x-22x	7.5x-33x	16x-70.4x
Working Dist.	90mm	150mm	105mm	45mm
Field of View	23-5.2mm	46-10.4mm	30.6-6.9mm	14.3-3.2mm
Eyepiece		DSW1	5X (F.N. 15)	
Auxiliary Lens	Nil	w/0.5x	w/0.75x	w/1.6x
Magnifications	15x-66x	7.5X-33X	11.25X-49.5X	24X-105.6X
Working Dist.	90mm	150mm	105mm	45mm
Field of View	15-3.4mm	30-6.8mm	20-49.5mm	9.3-2.1mm
Eyepiece	DSW20X (F.N. 11.4)			
Auxiliary Lens	Nil	w/0.5x	w/0.75x	w/1.6x
Magnifications	20x-88x	10x-44x	15x-66x	32x-140.8x
Working Dist.	90mm	150mm	105mm	45mm
Field of View	11.4-2.5mm	22.8-5.1mm	15.2-3.45mm	7.1-1.6mm

DSZT-44	DSZT-44 Trinocular
DSZ-44	DSZ-44 Binocular
Order #	Description

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# DSZ-70 Series

For high magnification applications

Zoom Ratio of 3.5: 1

Magnification range: 20x to 70x

Field of View of 10mm to 2.8mm (0.39" to 0.11")

Working distance 80mm (3.15")

Magnification range of 5x to 224x with optional lenses

### Wide Field 10x Eyepieces (field number 20)

\* Note specifications mentioned above are with Wide Field 10x eyepieces.

### **Optical Data**

Eyepiece	DSW5XZ (F.N. 20)			
Auxiliary Lens	Nil w/0.5x w/0.75x w/1.6x			
Magnifications	10x-35x	5x-17.5x	7.5x-26.25x	16x-56x
Working Dist.	80mm	120mm	85mm	41mm
Field of View	10-2.9mm	20-5.7mm	13.3-3.8mm	6.2-1.7mm
Eyepiece	DSW10XZ (F.N. 20)			
Auxiliary Lens	Nil	w/0.5x	w/0.75x	w/1.6x
Magnifications	20x-70x	10x-35x	15x-52.5x	32x-112x
Working Dist.	80mm	120mm	85mm	41mm
Field of View	10-2.8mm	20-5.7mm	13.3-3.8mm	6.2-1.7mm
Eyepiece	DSW15X (F.N. 15)			
Auxiliary Lens	Nil	w/0.5x	w/0.75x	w/1.6x
Magnifications	30x-105x	15x-52.5x	22.5x-78.75x	48x-168x
Working Dist.	80mm	120mm	85mm	41mm
Field of View	7.5-2.1mm	15-4.2mm	10-2.8mm	4.6-1.3mm

Eyepiece	DSW20X (F.N. 11.4)			
Auxiliary Lens	Nil	w/0.5x	w/0.75x	w/1.6x
Magnifications	40x-140x	20x-70x	30x-105x	64x-224x
Working Dist.	80mm	120mm	85mm	41mm
Field of View	5.7-1.6mm	11.4-3.2mm	7.6-2.1mm	3.5-1mm

Order #	Description
DSZ-70	DSZ-70 Binocular
DSZT-70	DSZT-70 Trinocular



Binocular stereo zoom body with 10x wide field eyepieces, Rubber eye guards and dust cover



Trinocular stereo zoom body with 10x wide field eyepieces, Rubber eye guards and dust cover 17



## NSW Series Stereo Microscopes

Configure Your Own Custom Microscope System @ www.aveninc.com



Dual Magnification of 6x & 20x, 10x & 20x, 10x & 30x and 20x & 40x bodies available

Single Magnification of 10x or 20x bodies available

10x Wide Field Eyepieces standard (field number 23)

Field of View: 38.3mm (1.50") at 6x, 23mm (0.91") at 10x, 11.5mm (0.45") at 20x, 7.6mm (0.30") at 30x and 5.7mm (0.22") at 40x

Order #	Description
NSW-1	Single 10x Stereo Body
NSW-2	Single 20x Stereo Body
NSW-20	Dual Magnification 10x & 20x Stereo Body
NSW-30	Dual Magnification 10x & 30x Stereo Body
NSW-40	Dual Magnification 20x & 40x Stereo Body
NSW-620	Dual Magnification 6x & 20x Stereo Body**

 \* Each Body comes with Wide Field 10x eyepieces Rubber Eye Guards and dust cover

\*\* NSW-620 will not work with stand T



Large stage to accommodate large parts (220mmx284mm). A long life and low temperature 9W fluorescent lamp is used for the built-in incident light. **Magnification: 10x & 30x** 

Order #	Description
26800B-361	NSW-30PF Microscope



Features a large stage to accommodate large parts (220mmx284mm). For illumination, we recommend our fluorescent ring lights or our fiber optic illuminator with our annular ring light. If an auxiliary lens is not used a ring light adapter will be required to install the fluorescent ring light or the annular ring light. **Magnification: 10x & 30x** 

Order # Description 26800B-362 NSW-30P Microscope

# **Preconfigured Systems**

Shown below are some of our popular systems or you can configure a system to match your application. **Configure a system online at www.aveninc.com** 

Stand Systems



Order #

26800B-305

### Model DSZ-44P

DSZ-44 Stereo Zoom Binocular Microscope 10x to 44x, with 10x eyepieces. Mounted on Stand P. For illumination we recommend fluorescent or LED Ring Lights or our fiber optic illuminators.

Stand base is 220mm x 284mm



Order	#
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26800B-371

### Model SPZ-50PFM

SPZ-50 Stereo Zoom Binocular Microscope 6.7x to 50x, with 10x eyepieces. Mounted on Stand PFM. Has built in 9W Fluorescent ring light.

Stand base is 220mm x 284mm





Order # 26800B-370

SPZ-50 Stereo Zoom Binocular Microscope

6.7x to 50x, 10x eyepieces, 0.5x lens, Ring Light Adapter, and LED Ring Light with Intensity Control. Mounted on our Double Arm Stainless Steel Ball Bearing Boom Stand.



Order # 26

26800B-369

### SPZT-50 Stereo Zoom Trinocular Microscope

6.7x to 50x 10x eyepieces, 0.5x lens, Ring Light Adapter, Fiber Optic Illuminator with Annular Ring Light, USB Infinity 1, 1.3 Megapixel Camera with Infinity Image Analysis Software. Mounted on our Double Arm Stainless Steel Ball Bearing Stand. Computer not included. **Preconfigured Systems** 

Shown below are some of our popular systems or you can configure a system to match your application. **Configure a system online at www.aveninc.com** 

### Examples of other Popular Systems

Systems shown below can be ordered using individual part #s. Call us, we can help configure a system to meet your requirements





# **Optional Accessories**

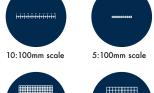
Eyepiece Lenses and Rubber Eye Guards

	Order #	Description
aw5x aw5x	26800B-444	<b>DSW-5X eyepieces</b> for DSZ-44, DSZT-44 and NSW series bodies. F.N. 22.5
met met	26800B-446	<b>DSW-5XZ eyepieces</b> for DSZ-70 and DSZT-70 series bodies, F.N. 20.
	Order #	Description
	26800B-441	<b>DSW-10X eyepieces</b> for DSZ-44, DSZT-44 and NSW series bodies. F.N. 23.
	26800B-448	<b>DHW-10X eyepieces</b> for SPZ-50 and SPZT-50 series bodies. F.N. 23.
	26800B-445	<b>DSW-10XZ eyepieces</b> for DSZ-70 and DSZT-70 series bodies. F.N. 20.
	Order #	Description
	26800B-442	<b>DSW-15X eyepieces</b> for DSZ-44, DSZT-44, DSZT-70, DSZT-70 and NSW series bodies. F.N. 15
	26800B-449	DHW-15X eyepieces for SPZ-50 and SPZT-50 series bodies. F.N. 15.
	Order #	Description
	26800B-443	<b>DSW-20X eyepieces</b> for DSZ-44, DSZT-44, DSZ-70, DSZT-70 and NSW series bodies. F.N. 11.4
	26800B-450	<b>DHW-20X eyepieces</b> for SPZ-50 and SPZT-50 series bodies. F.N. 11.4.
	Rubber Ev	/e Guards
epieces listed above	Rubber Ey Order #	e Guards Description
epieces listed above e sold in pairs only.		

### Focusing Eyepiece 1 Ox with Reticle

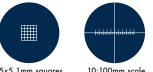


Order #	Description
26800B-455	10x with 5:100mm scale
26800B-456	10x with 10:100mm scale
26800B-457	10x with 20 x 20 0.5mm squares
26800B-458	10x with 10 x 10 1mm squares
26800B-459	10x with 10:100mm scale with cross line





20x20 0.5mm squares 10x10 1mm squares



5x5 1mm squares

10:100mm scale with crossline

\*Above eyepieces are for the DSZ/NSW series bodies.

To order focusing evepieces for the SPZ Series bodies, please add -10 to the end of the above mentioned part numbers.

**Optional Accessories** 

### Auxilary Objective Lenses

	0	Order # 26800B-461	Description Auxiliary lens 0.5x		
22	0.5×	26800B-462	Auxiliary lens 0.75x		
Stereo Micros		Order #	Description		
ere		26800B-463	Auxiliary lens 1.6x		
	1.6×	26800B-464	Auxiliary lens 2x	*	Please note 0.5x lens
Zoom		Order #	Description		cannot be used with SPZ series bodies with stand P and PE, 0.5x lens cannot
S E		26800B-465	Lens Cover for protection of objectives		be used for stands T and
		Order #	Description	* *	TL and with NSW series with stand P 2x lens cannot be used
		26800B-460	<b>Adapter</b> to mount Fluorescent Ring Light or Fiber Optic Annular Ring Light		with the DSZ and NSW series bodies.

### Camera Adapters



\* Various Adapters are available for mounting Digital Cameras. Please call with the type of camera you want to use with our trinocular microscopes.

### Gliding Stages

line)	Order #	26800B-475		Order #	26800B-476
	103mm. Base	Omm x 250mm x Size: 520mm x e of movement mm.		40mm. Base S	e of movement
	Order #	26800B-471		Order #	26800B-474
1	micrometers. Mi (MHN1-25). Siz	ith attachments for tutoyo No. 150-192 te 114mm x 114mm. nent 25mm x 25mm.			e 135mm. Range 25mm x 25mm.
	Order #	Descrip	rtion		
	26800B-472	Size 140mm x 114	mm. Range of movement 94mm x 66mm.		

# Illumination

### Standard Frequency Fluorescent Ring Lights

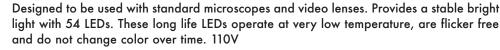


26200B-207 to 208

Aven fluorescent ring lights are designed for applications requiring a high quality illuminator. Provides 360° shadow free illumination. Our reflector housing is cast from high quality aluminum alloy (except for model 26200B-201) for durable and cool operation. Operates at 115V AC.

Order #	Description
26200B-201	Fluorescent Ring Light Economy, 8 watt Lamp
26200B-202	Fluorescent Ring Light Standard, 17 watt Lamp
26200B-203	Fluorescent Ring Light with UV Lamp
26200B-206	Fluorescent Ring Light ESD Safe, 17 watt Lamp
26200B-207	Fluorescent Ring Light with Focus mount for DSZ & NSW Series
26200B-208	Fluorescent Ring Light with Focus mount for SPZ Series

### White LED Ring Light w/Brightness Control



26200B-210	White LED Ring Light with Brightness Control
Order #	Description

### White LED Ring Light w/Brightness & Sector Control

Designed to be used with standard microscopes and video lenses. Has a 7 step brightness control feature and four lighting modes, 1/4, 2/4, 3/4, and Full. Excellent for applications requiring a high degree of lighting control. Incorporates 60 Long Life LEDs that are flicker free and operate at low temperature and do not change color over time. 110V.



Order #	Description	
26200B-211	White LED Ring Light with Brightness & Sector Control	

### Model L Fiber Optic Illuminators



Features
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- High output 150 Watt Lamp
- Variable Intensity Control
- Approximately 200-2000 Hours Lamp Life (not guaranteed)
- Supplied with Ring Light (39") or Double Pipe Light (19.5")
- Illuminator with double pipe light has a focusing lens included, providing an illumination distance of 20-200mm and an illumination area of 10-40mm

### Input Voltage 110VAC

Dimensions: 1	1″x6.5″x5″	Weight: 9.6lbs.	
 Ordar #	Description		
26200A-205	Model L Fiber Optic Illuminator w/Ring Light		
26200A-207	Model L Fiber Optic Illuminator w/Double Pipe Light & Focusing Lens		



26200A-207

Aven Inc. | 4595 Platt Road | Ann Arbor, MI 48108