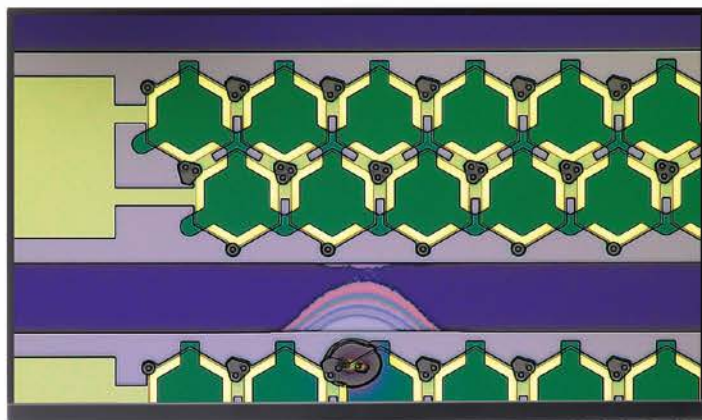


# Powerful Analysis, Dynamic Imaging



# Intelligent Innovation

## Macro to Micro

**Large selection of lenses to find the best magnification, resolution, and working distance for your sample**

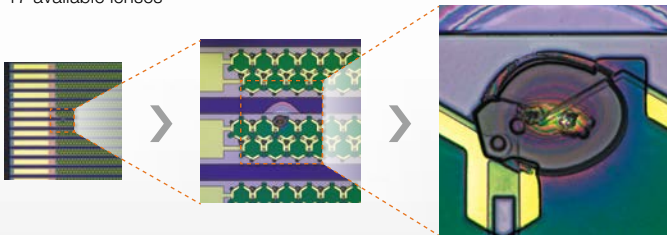
- 23X to 8220X magnification
- Accommodates larger samples with an up to 66 mm (2.6 in.) working distance

**Free angle observation system**

- Oblique observation ( $\pm 90^\circ$ )
- XY motorized stage with rotation ( $\pm 90^\circ$ )



17 available lenses



## Be Confident in Your Results with Guaranteed Accuracy and Precision

**Precise measurements**

- Eliminate the image conversion effect for accurate measurements with a telecentric optical system

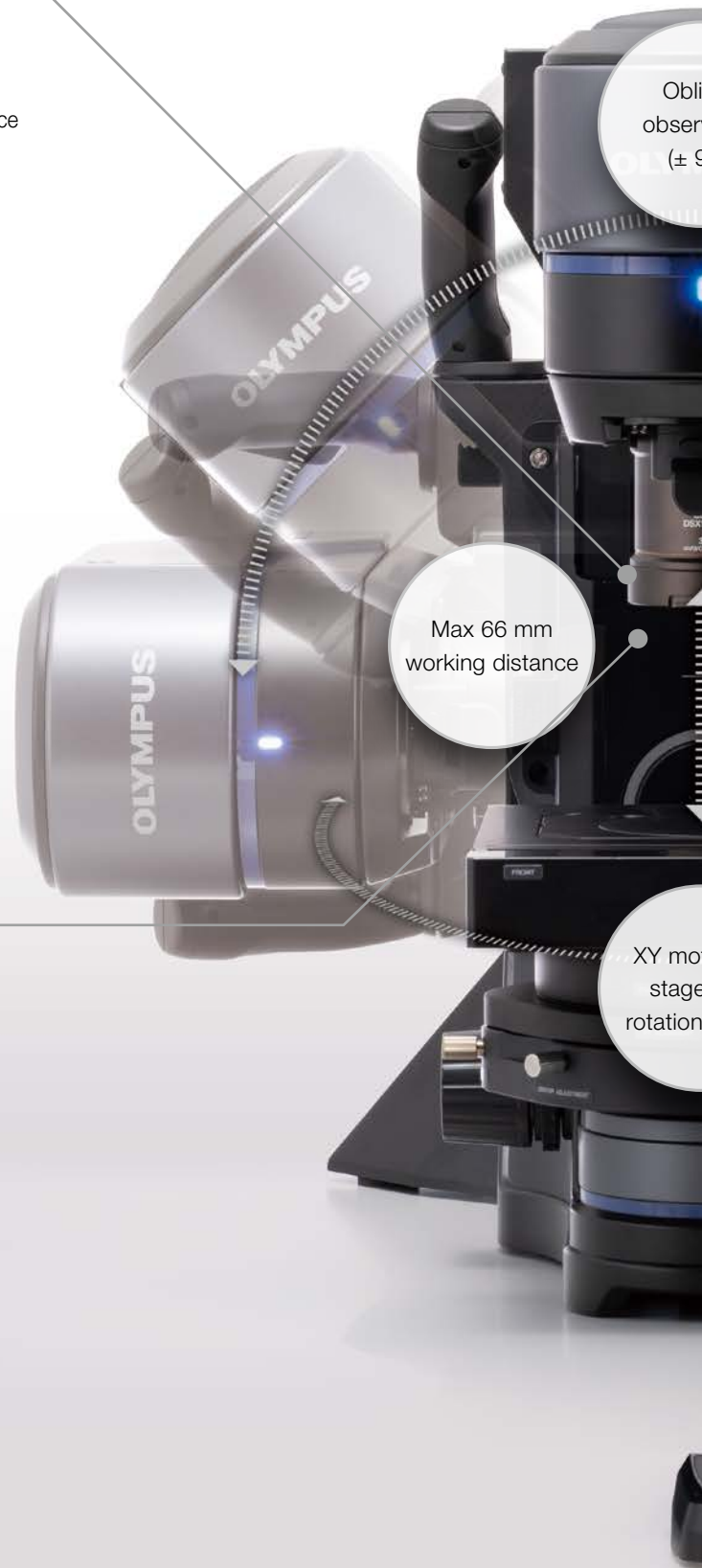
**Accuracy and repeatability guaranteed at all magnifications**

- Acquire reliable measurement results



Reliable, accurate measurements

\*To issue certificates, calibration work must be undertaken by Olympus's dedicated service technician.





Wide magnification range: 23X to 8220X

Authorized observation method with a 90° rotation (± 90°)

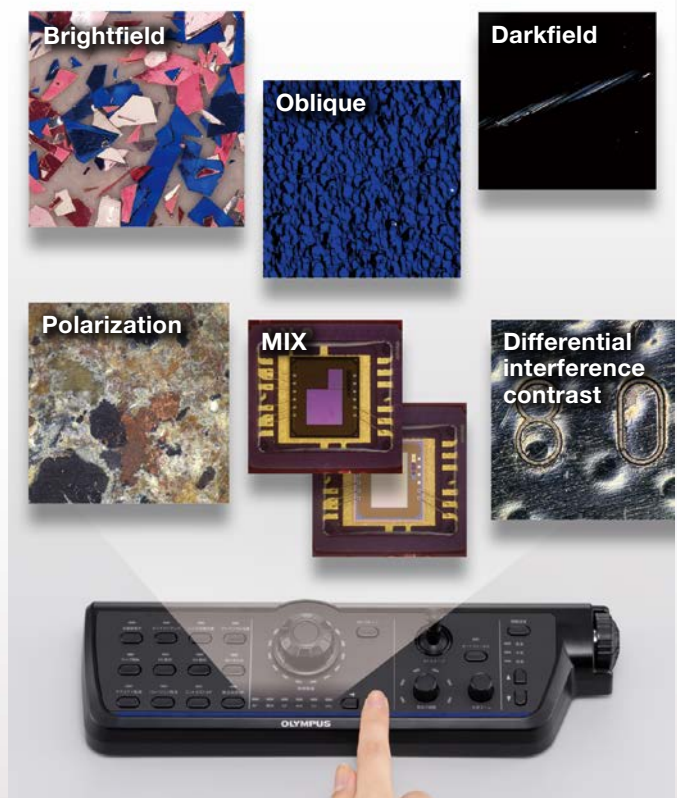
## Multiple Observations with a Single Click

### Instant switching saves time

- Quickly change objectives
- Switch observation methods by pushing a button

### All observation methods available at all magnifications

- Six observation functions are built into the optical head



Switching between observation methods is as push of a button

## Advanced Measurements Are Fast and Easy to Obtain

### Improved analysis functions make the DSX1000 powerful and versatile

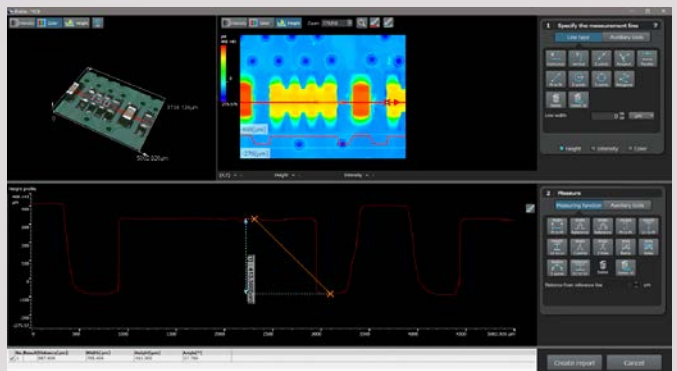
- Measure profiles, inter-surface steps, surface roughness, and more

### Faster analyses with advanced easy-to-use functions

- Automated functions ease your workflow



Remote console makes the system easy to control



Powerful analysis software

# Specifications Main Unit Specifications

		DSX10-SZH	DSX10-UZH
Optical system	Optical system	Telecentric optical system	
	Zoom ratio	10X (motorized)	
	Zoom magnification method	Motorized	
	Calibration	Automatic	
	Lens attachment	Quick-switch, coded lens attachments automatically update magnification and visual field information	
	Maximum total magnification (on a 27-inch monitor)	8220X	
	Working distance (W.D)	66.1 mm – 0.35 mm	
	Accuracy and repeatability (X-Y plane)	Accuracy of magnification: 3%* <sup>1</sup> Repeatability of magnification: $\pm 2\% = 3\sigma n - 1$	
	Repeatability (Z axis)	Repeatability (height): $\sigma n - 1 \leq 1 \mu\text{m}$ * <sup>2</sup>	
Camera	Image sensor	1 / 1.2 inch, 2.35 million pixel color CMOS	
	Cooling	Peltier cooling	
	Frame rate	60 fps (maximum)	
	Normal	1,200 × 1,200 (1:1) / 1,600 × 1,200 (4:3)	
	Fine	Not available	1,200 × 1,200 (1:1) / 1,600 × 1,200 (4:3)
Illumination	Color light source	LED	
	Lifetime	60,000 h (design value)	
Observation	BF (brightfield)	Standard	
	OBQ (oblique)	Standard	
	DF (darkfield)	Standard LED ring divided into four divisions	
	MIX (brightfield+darkfield)	Standard Simultaneous observation of BF + DF	
	PO (polarization)	Standard	
	DIC (differential interference)	Not available	Standard
	Contrast up	Standard	
	Depth of focus up function	Not available	Standard
	Transmitted lighting	Standard* <sup>3</sup>	
Focus	Focusing	Motorized	
	Stroke	101 mm (motorized)	

\*1 Calibration by Olympus or dealer service technician necessary. \*2 When used 20X or higher objective. \*3 The optional DSX10-ILT is required.

Objective		DXS10-SXLOB	DSX10-XLOB	UIS 2
Objective lens	Maximum sample height	50 mm (2 in.)	115 mm (4.5 in.)	145 mm (5.7 in.)
	Maximum sample height (free angle observation)	50 mm (2 in.)		
	Parfocal distance	140 mm (5.5 in.)	75 mm (3 in.)	45 mm (1.8 in.)
	Lens attachment	Integrated with lens	Available	
	Total magnification (on a 27-inch monitor)	23–1644x	49–6570x	26* <sup>4</sup> –8220x
Actual F.O.V. (μm)	19,200 μm – 270 μm	9,100 μm – 70 μm	17,100 μm – 50 μm	
Adaptor	Diffusion adaptor (optional)	Available	Not available	
	Eliminate reflection adaptor (optional)	Available	Not available	
Lens attachment	Number of objectives that can be attached	Up to 1 piece (attachment is integrated with lens)	Up to 2 pieces	
Objective lens case		Three lens attachments can be stored		

\*4 Total magnification when using MPLFLN1.25X

Stage		DSX10-RMTS	DSX10-MTS	U-SIC4R
Stage	XY stage: motorized / manual	Motorized (with rotation function)	Motorized	Manual
	XY stroke	Stroke priority mode : 100 mm × 100 mm Rotation priority mode : 50 mm × 50 mm	100 mm × 100 mm	100 mm × 105 mm
	Rotation angle	Stroke priority mode : $\pm 20^\circ$ Rotation priority mode : $\pm 90^\circ$	Not available	
	Display rotation angle	GUI	Not available	
	Load-resistance	5 kg (11 lb)		1 kg (2.2 lb)

Frame	Upright frame	Tilt frame
Z-axis stroke	50 mm (manual)	
Tilt observation	Not available	$\pm 90^\circ$
Tilt angle display	Not available	GUI
Tilt angle method	Not available	Manual, fix / release handle

Display	
Size	27-inch flat panel display
Resolution	1,920 (H) × 1,080 (V)

System Total	Upright frame system	Tilt frame system
Weight (frame, head, motorized stage, display, and console)	43.7 kg (96.3 lb)	46.7 kg (103 lb)
Power consumption	100 V–120 V/220 V–240 V–1.1/0.54 A–50/60 Hz	

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