

■ Specifications

Model	TW-TL1Z	TW-TL10ZR	
Lens	Zoom ratio	10x manual	
	Focus adjustment	Manual	
	Iris adjustment	Manual	
	Optical magnification *1	approx.0.07x - 0.7x	approx.0.14x - 1.4x
Camera	CCD	1/4" Super HAD CCD technology base, 0.41 Mega pixel, 30 frame/second	
	Swing range	±45°	
LCD monitor	Drive system	TFT active matrix	
	Diagonal size, Display area	26 cm (10.4") / 211.2 x 158.4 mm	
	Dot pitch, Pixel pitch	0.11 x 0.33 mm / 0.33 x 0.33 mm	
Picture magnification *1	10.4" monitor (upper mounted)	approx. 4.3x ~ 43x	approx. 8.6x ~ 86x
	Horizontal view length of the object	approx. 49 ~ 4.9 [mm]	approx. 25 ~ 2.5 [mm]
Vertical center adjustment range	approx. 48.5±5°		
Working distance	approx. 155 mm		
Lighting	Devices	8 units of white Power (Full/divided lighting selectable with buttons on the front panel)	
	Maximum light intensity *2	7000Lux or more at the center work table	
	Light intensity adjustment	Non step-wise adjustment is available with the volume adjuster on the front panel	
Laser pointer	Class1, Wave length 650nm, spot diameter=2mm or less		
External output	Mini D-sub 15 pin connector on the rear panel of 10.4" monitor *3	<VGA mode> Video signal: Analog RGB 0.7Vp-p Sync:TTL Low-active, H sync freq.=31.47kHz, Pulse width=3.8us V sync freq.=59.94Hz, pulse width 63.3us	
	video output on the rear panel	RCA type pin-jack (75 Ohm unbalanced) / NTSC composite	
Picture Storage	Device Type	CF card (Type I)	
	File System	FAT12, FAT16, FAT32	
	Format *4	BMP	
Control input	Mouse	PS/2 miniDIN	
	CAPTURE/REC	Mini-jack, Closing substitutes pressing CAPTURE/REC button on the monitor front pannel (passive connection only)	
Safety standard	CE, DHHS		
Dimension [mm]	W287xD455xH481 [mm]		
Mass	approx. 7.2kg (without AC adapter)	7.4kg	
Power supply voltage	DC12V (with supplied AC adapter)		
Input voltage of AC adapter	100 - 240V (50/60Hz)		
Power consumption	70VA (at input of AC adapter)		
Operation temperature range	0~40°C (No condensation)		
Storage temperature range	-10~50°C (No condensation)		
Supplied accessories	AC adapter, AC cord (dedicated to the region), Lens cap, Sample table, Video cable(1m) and Instruction manual Multi Angle Adapter(Only TW-TL10ZR)		

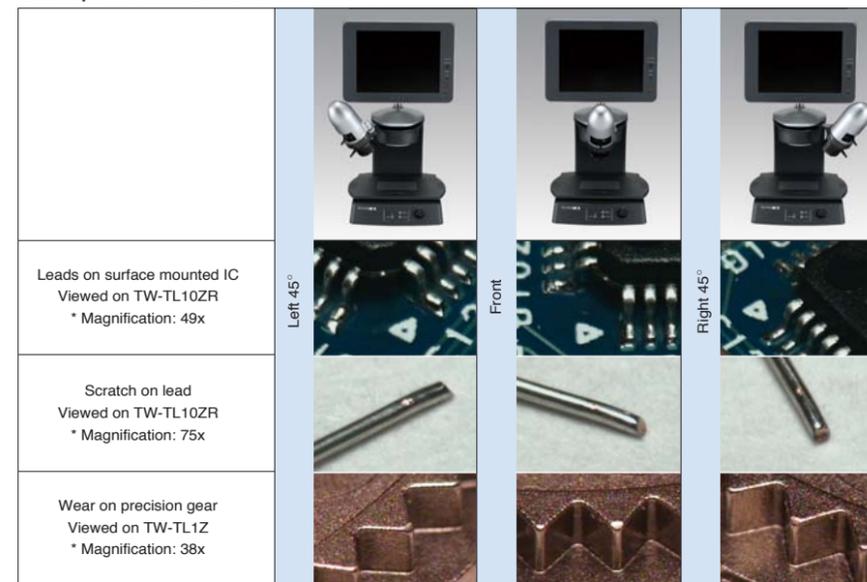
*1 When observing a thin object on the sample table.

*2 Maximum light intensity value specified on this sheet is valid only for brand-new one. LED light replacement is available only at the licensed service stations.

*3 Not connectable to every type of monitor. Please confirm above specifications of external output when choosing the external PC monitor.

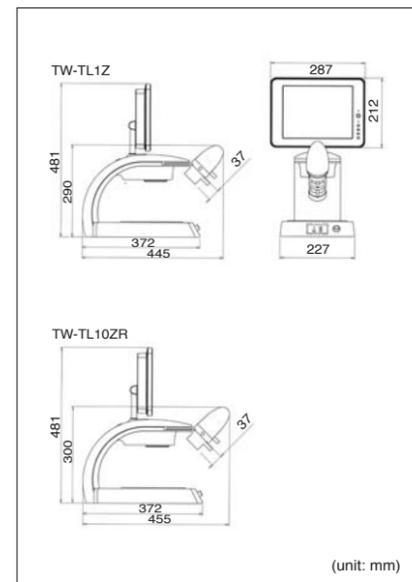
*4 Not compatible of DCF or DPOF. Picture data is stored into the specified directory of the memory device. Load them on your PC.

■ Examples of views with camera swiveled



* These show images as displayed on the 10.4" display.

■ External dimensions



*TECHNOLOOK's
logical evolution.*

See it big on
Our 10.4" display!!

Swiveling camera
for viewing freedom

TECHNOLOOK

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Sony Manufacturing Systems Corporation

Camera swivels.

The camera swivels 45° to the left and 45° to the right to give you a stereoscopic view.

Sony's TECHNOLOOK is the ideal video microscope for viewing microscopic three-dimensional objects including millimeter size small objects and small tissues those are hard to view even with an optical microscope.

With 45° left and right swiveling and a 48.5° viewing angle from above, TECHNOLOOK allows you to view your object in a natural line-of-sight. The special designed rigid arm minimizes shaking when the camera is swiveled.



10.4" LCD

With a high-precision 10.4" color LCD is included as standard!

Sony's TECHNOLOOK with a high-precision 10.4" color LCD is included as standard.

Coupled with the Super HAD CCD video camera, this system displays objects larger and with exceptional clarity.



TL-TL10ZR shown in photo.
* Image in display has been composited.

Operation for ease of use.

Recording your images and changing your settings are easy to do with the buttons on the display. You can also connect a mouse to TECHNOLOOK, as well as a foot switch to record images when both of your hands are occupied. Recording is made on a memory card. (mouse, foot switch and memory card are not included).



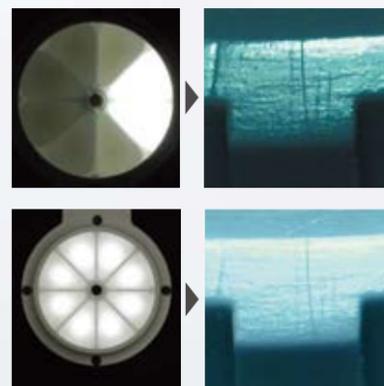
Easy lens adjustments using a single lever.

The lever on the lens offers an easy way to make zoom, focus and iris adjustments. The 10x zoom function moves in and out smoothly so you can quickly verify the area you are enlarging. TECHNOLOOK lens assembly is also equipped with a ±5° tilt adjustment that gives you a natural 3D view regardless of your point of observation.



White Power LEDs provide fractioned lighting and ensure natural colors.

TECHNOLOOK uses white Power LEDs for lighting to allow users to view in natural color. The fractioned lighting function provides 15 different combinations of LEDs, so that you can choose the right lighting angle for specific objects. You can also adjust the optimum exposure using the light adjustment knob.



Sample table and laser pointer are easy to use.

The uncluttered sample table moves smoothly in horizontal directions. The laser pointer allows you to easily determine the point of observation. Lights dim automatically when the pointer is in use (when all lights are on).



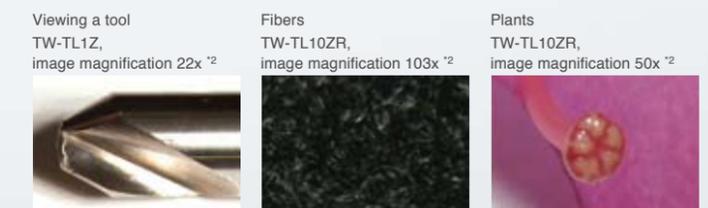
High-sensitivity imaging device: Super HAD CCD.

The imaging device, the heart of a video camera, is Sony's original Super HAD CCD which delivers high-sensitivity imaging. This device images details in exceptional clarity even at high magnifications.

Three models with different magnifications to choose from.

		TW-TL1Z	TW-TL10ZR
Image magnification *1	10.4" display (top-mounted)	Approx. 4.3x-43x	Approx. 8.6x-86x
	Object's horizontal view field length	Approx. 49-4.9 (mm)	Approx. 25-2.5 (mm)

*1 - For thin object viewed on the sample table.



*2 - These show images as displayed on the 10.4" display.