

Specifications

Model	TW-TL1Z	TW-TL10Z	TW-TL15Z	
Lens	Zoom ratio	10x manual		
	Focus adjustment	Manual		
	Iris adjustment	Manual		
	Optical magnification *1	Approx. 0.07 ~ 0.7x	Approx. 0.19 ~ 1.9x	Approx. 0.34 ~ 3.4x
Camera	CCD	1/4" Super HAD CCD. 410,000 pixels. 30 frames/sec		
	Swing range (horizontal swivel range)	±45°		
LCD monitor	Drive system	TFT active matrix		
	Diagonal display 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		
Image magnification *1	10.4" display (top-mounted)	Approx. 4.3 ~ 43x	Approx. 12.0 ~ 120x	Approx. 21.1 ~ 211x
	Object's horizontal view field length	Approx. 49 ~ 4.9 mm	Approx. 18 ~ 1.8 mm	Approx. 10 ~ 1.0 mm
Vertical viewing angle / range of vertical center adjustment	Approx. 48.5±5°			
Working distance	Approx. 155 mm		Approx. 80 mm	
	Type	Eight white Power LEDs (Switch between "all on" and fractioned lighting using switch at the front)		
Lighting	Maximum illuminance *2	7000 lx or greater (in "all on" mode)		
	Type of adjustment	Infinitely adjustable knob.		
	Laser pointer	Class1, 650nm with a spot diameter of φ2mm or smaller		
External outputs	Analog RGB output for PC monitor *3	<VGA mode> video signal: Analog RGB 0.7Vp-p Synchronizing signal: TTL negative logic, Horizontal synchronization signal 31.47kHz with 3.8μs pulse width Vertical synchronization signal: 59.94Hz with 63.3μs pulse width		
	Video output	RCA type pin jack (75Ω unbalanced) / NTSC composite		
Recording	Recording medium	CF card (Type I)		
	File system	Supports FAT 12, 16 and 32		
	Recording format *4	BMP		
Control inputs	Mouse	PS/2 miniDIN		
	Capture/Rec	Minijack. When electrically shorted, this performs the same function as pressing the Capture/Rec button on the front panel of the display. (No voltage may be applied)		
Safety standards	CE, DHHS			
Dimensions	287 (W) x 445 (D) x 481 (H) mm	287 (W) x 455 (D) x 481 (H) mm	287 (W) x 445 (D) x 481 (H) mm	
Mass	Approx. 7.2kg (not including AC adapter)			
Power voltage	12V DC (Use attached AC adapter)			
AC adapter input voltage	100 ~ 240V(50/60Hz)			
Power consumption(at input of AC adapter)	60VA (100V input) 70VA (200V input)			
Operating temperature range	0 ~ 40°C (no condensation)			
Storage temperature range	-10 ~ 50°C (no condensation)			
Accessories	AC adapter, AC power cord (applicable for the product destination), lens cover, sample table, video cable (1m), anti-vibration pad (TW-TL15Z only) and instruction manual			

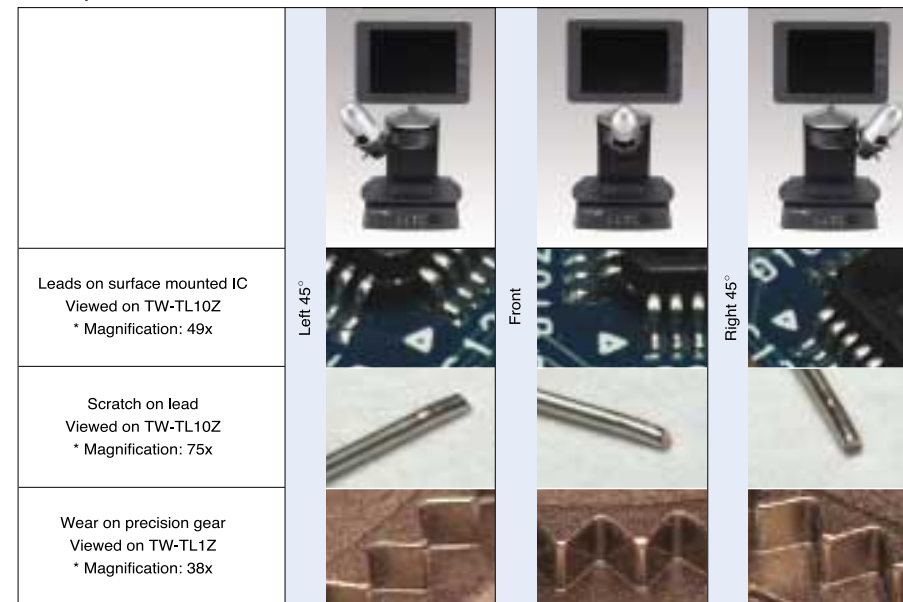
*1 For thin object viewed on the sample table.

*2 This value does not constitute a guarantee. LEDs have a lifetime limit.

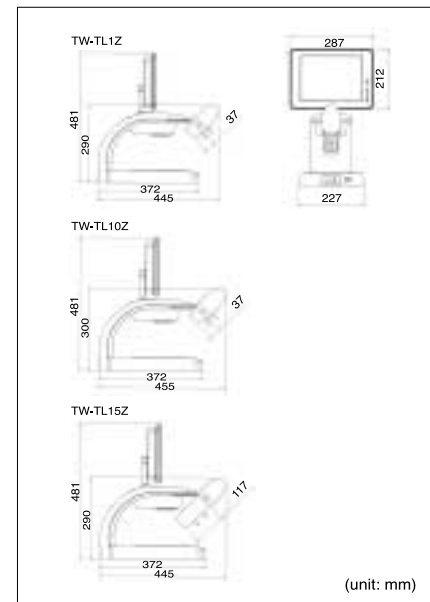
*3 We do not guarantee connection to all displays. Please refer to output signal specifications before choosing your display.

*4 Not compatible with DCF or DPOF. Image files are generated in the specified directory on your memory device. Copy them to your PC to use.

Examples of views with camera swiveled



External dimensions



*TECHNOLOOK's
logical evolution.*

See it big on
Our 10.4" display!!

Swiveling camera
for viewing freedom

TECHNOLOOK

⚠ Safety notice: Prior to use, be absolutely certain to read and understand the Operating Instruction to ensure proper use of this product.

● Standards, specifications and appearance may be modified without notice.

Sony Manufacturing Systems Corporation

Sony Manufacturing Systems Corporation
Surface Mounter Sales Dept.
1-10 Kyokyocho, Kuki-shi, Saitama-ken, 346-0035 Japan
Tel: +81-480-23-4896 Fax: +81-480-23-4310
http://www.sonymss.com.jp

Sony Taiwan Limited
FA Marketing Group
6F, 145 Changchun Road Taipei 104, Taiwan
Tel: +886-2-2522-9760 Fax: +886-2-2522-2396
http://www.sony.com.tw/company/family/FA/FA.asp

http://www.sonymss.com.jp/

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Sony Thai Co., Ltd.
2126 Kromadit Bldg., 4th FL., New Petchburi Rd., Bangkok, Huay
Kwang, Bangkok 10310, Thailand
DID: +66(0)2715-6360 Direct Fax: +66(0)2715-6369

Sony Manufacturing Systems America, Inc.
20381 Hermans Circle, Lake Forest, CA 92630
Tel: +1-949-770-8400 Fax: +1-949-770-8408 http://www.sonypt.com

Sony Manufacturing Systems Europe
Headquarters
Semiconductor & Electronic Solutions A division of Sony United Kingdom Ltd.
The Heights, Brooklands, Weybridge, Surrey KT13 0XW, UK
Tel: +44-1753-617024 Fax: +44-1753-617024
Stuttgart Office
Hedelfinger Strasse 61, D-70327 Stuttgart, Germany
Tel: +49-711-5858-777 Fax: +49-711-58 07 15
http://www.sonymanufacturing.com



Used material: 100% recycled paper, recyclable
Zero-VOC (Volatile Organic Compound) vegetable oil ink



Sony Manufacturing Systems Corporation

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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

Comes standard with a high-resolution 10.4" color LCD!

Our new high-resolution 10.4" color LCD delivers 2.4 times the display area and 2.7 times more pixels than our previous 7" display, thereby delivering vastly improved viewability. Coupled with the Super HAD CCD video camera, this system displays objects larger and with exceptional clarity.



TL-TL10Z 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).



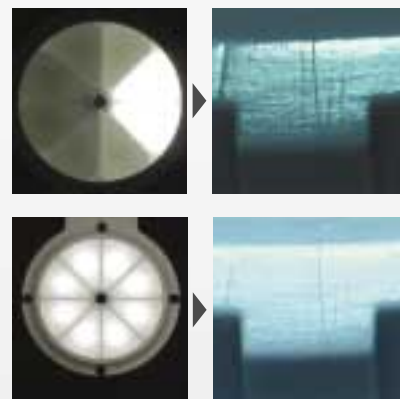
Easy lens adjustments using a single lever.

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.



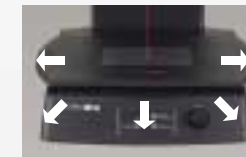
White Power LEDs provide fractioned lighting and ensure natural colors.

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).



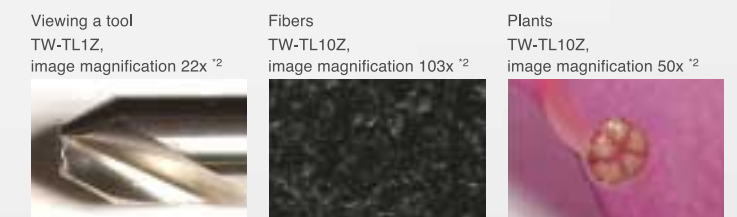
High-sensitivity imaging device: Super HAD CCD.

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.

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Image magnification ^{*1}	10.4" display (top-mounted)	Approx. 4.3x-43x	Approx. 12.0x-120x	Approx. 21.1x-211x
	Object's horizontal view field length	Approx. 49-4.9 (mm)	Approx. 18-1.8 (mm)	Approx. 10-1.0 (mm)

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



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