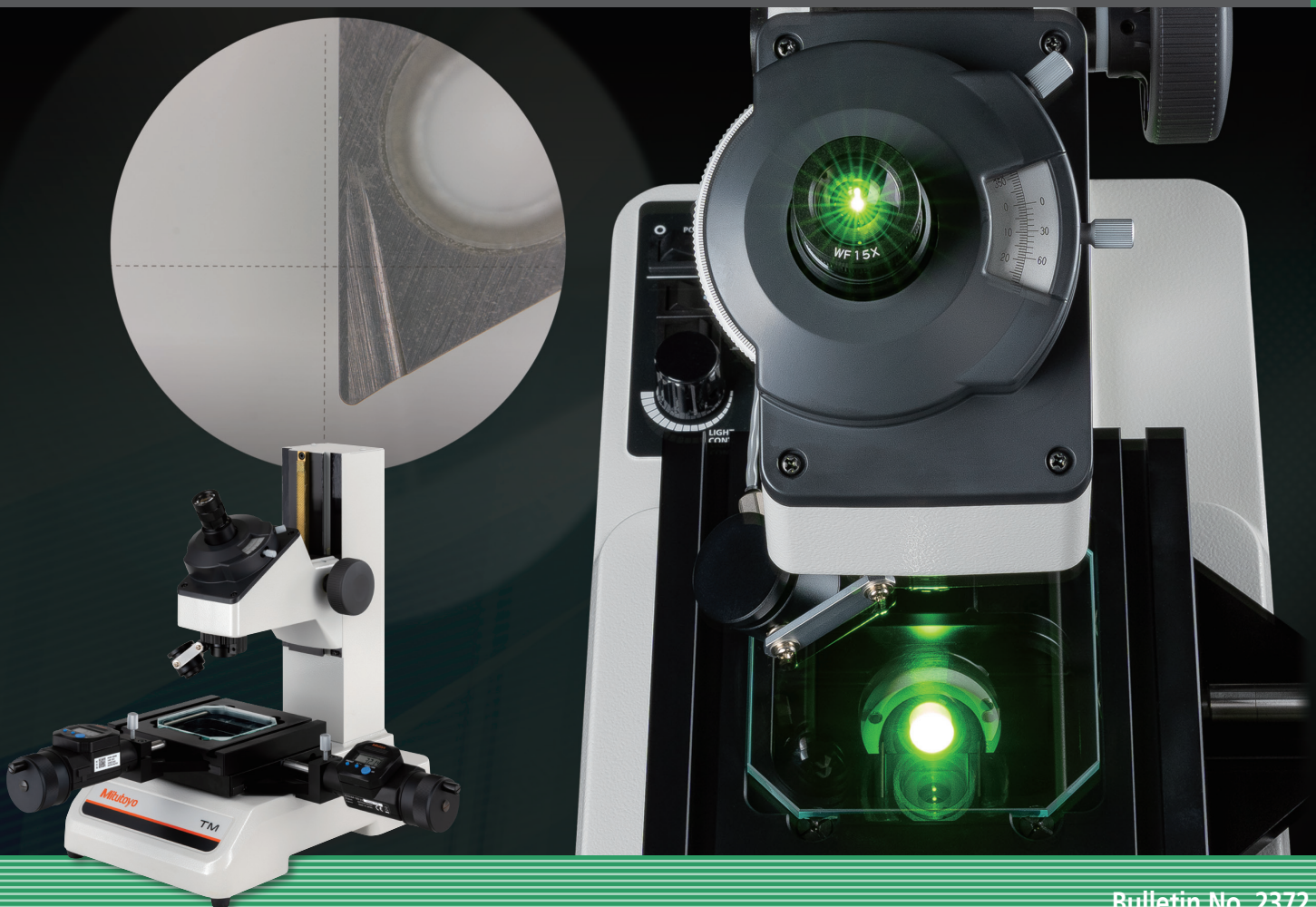


# Mitutoyo

Mitutoyo Quality

## Toolmakers' Microscopes TM Series

Optical Measuring



Bulletin No. 2372



TM-505B  
176-819-11A

\* Shown with optional Digimatic micrometer heads

# Bright and Clear Field of View Superior Performance in Small-model Class



SCAN ME

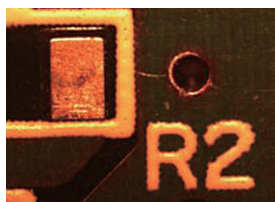
Part Number	Description	Resolution	Sensor Size
64PMI247	MOTI-CAM S1, 1.2 MEGAPIXEL, 1280x960, USB	1.2MP	1/3"
64PMI249	MOTICAM S3, 3 MEGAPIXEL, 2048 X 1536 PIXELS, USB	3MP	1/2.8"
64PMI248	MOTI-CAM S6, 6 MP, 3072x2048 PIXELS, USB	6MP	1/1.8"
64PMI309	MOTICAM BMH400X, 8 MP HDMI/USB	8MP	1/2.8"
64PMI310	MOTICAM BMH4000X, 8 MEGAPIXEL, HDMI / USB, LCD SCREEN		
64AAA060	0.37x C Mount Adapter (TM - Camera Adapter)*1		

\*1 Required Item if utilizing C-Mount Camera

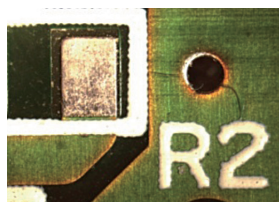


## FEATURES

- Newly designed LED illuminators provide clear observation with outstanding color reproduction.



Conventional illumination



LED illumination

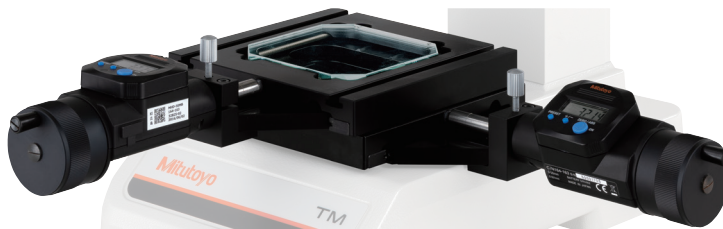
- A Vernier scale mounted outside the eyepiece enables simple angle measurement.



- Optional LED circular illuminator 176-208-11A available for applications requiring all-round lighting.



- Installation of optional Digimatic micrometer heads (164-164) enables easy digital measurement.



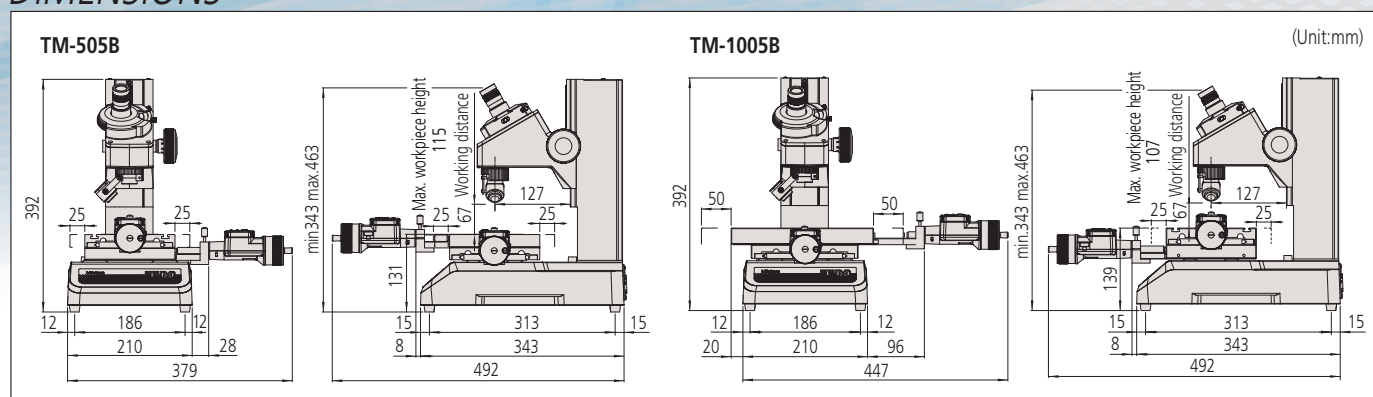


# SPECIFICATIONS

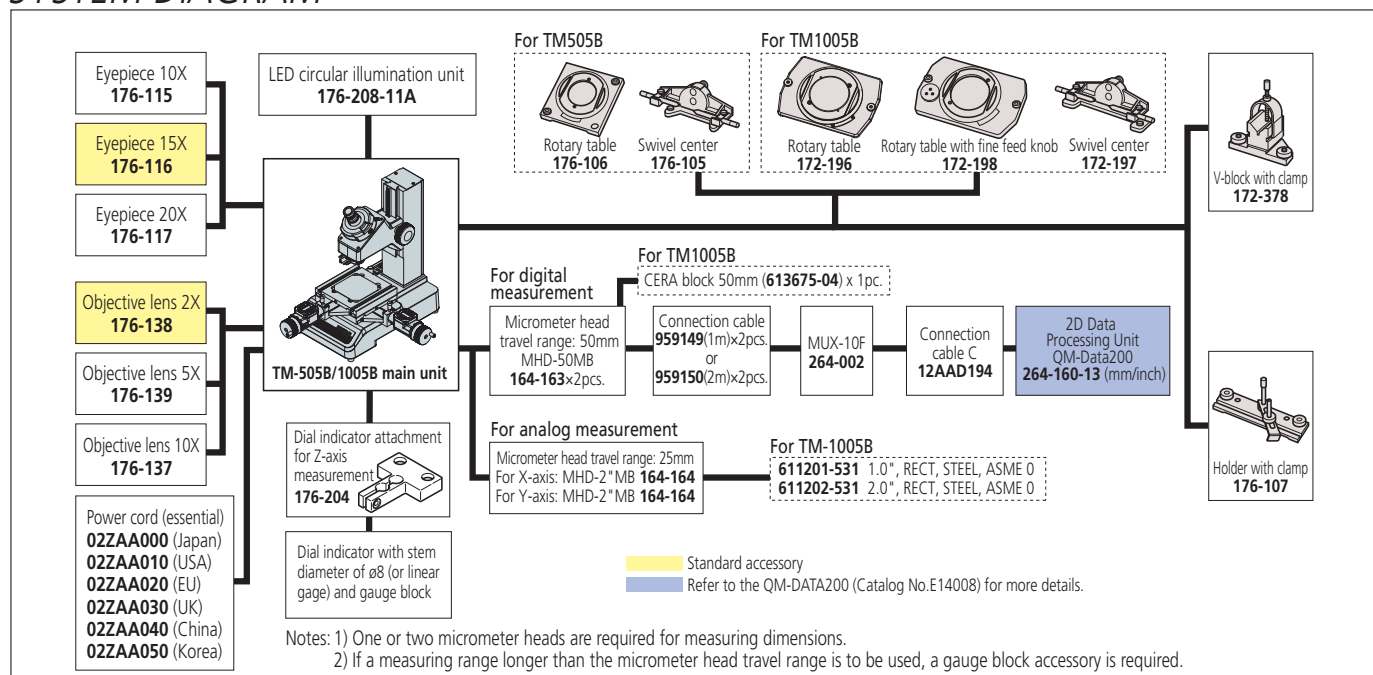
Model No.		TM-505B	TM-1005B
Order No.		176-818-11A	176-819-11A
Main Unit with 164-164 Mic Heads Inc		176-820-11A	176-821-11A
Optical tube		Monocular type (Depression angle: 60°)	
Observation image		Erect	
Eyepiece protractor		Resolution (graduation) : 1°, Rotation angle: 360°, Minimum reading by Vernier: 0.5°. Adjustable zero point	
Eyepiece		Standard accessory: 15X (field number: 13), Options: 10X, 20X	
Objective lens		Standard accessory: 2X, Options: 5X, 10X	
Microscope head	Maximum height of workpiece	115 mm	107 mm
	Focusing method	Manual (Coarse feed)	
Illumination unit	Transmitted illumination	Stepless brightness adjustment, White LED light source, With green filter	
	Surface illumination	Oblique single-source type, Stepless brightness adjustment, White LED light source	
Cross-travel stage	Measuring range	50×50 mm	100×50 mm (An optional 50 mm gauge block* is required to cover full range. A CERA block is recommended.)
	Table size	152×152 mm	240×152 mm
	Usable area of the stage glass	96×96 mm	154×96 mm
	Maximum stage glass loading	5 kg	
Linear measurement method		Micrometer head*	
Resolution		Depends on the micrometer head specifications* (for <b>MHD-2"MB (164-164)</b> : Resolution 0.00005"/0.001mm) (for <b>MHD-2"MB (164-164)</b> : 2"/50.8mm)	
Micrometer head travel range			
Power source		100 to 240 VAC 50/60 Hz Maximum power consumption: 4.2 W	
Main unit mass		14 kg	15 kg

\* Micrometer heads and gauge blocks (CERA blocks) are optional.

# DIMENSIONS



# SYSTEM DIAGRAM





**Whatever your challenges are, Mitutoyo supports you from start to finish.**

Mitutoyo is not only a manufacturer of top quality measuring products but one that also offers qualified support for the lifetime of the equipment, backed up by comprehensive services that ensure your staff can make the very best use of the investment.

Apart from the basics of calibration and repair, Mitutoyo offers product and metrology training, as well as IT support for the sophisticated software used in modern measuring technology. We can also design, build, test and deliver measuring solutions and even, if deemed cost-effective, take your critical measurement challenges in-house on a sub-contract basis.



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