

From Eye to Insight



LEICA LMD6/7

Technical Information – May 2017



FEATURES AND SPECIFICATIONS

Laser	Leica LMD7	Leica LMD6
Type	Diode pumped, solid state	Diode pumped, solid state
Wavelength	349 nm	355 nm
Average pulse energy	120 µJ	70 µJ
Repetition rate	10 – 5000 Hz	80 Hz
Adjustable repetition rate	Yes	No
Laser aperture control	Yes, continuously adjustable	Yes, continuously adjustable
Free intensity control	1-100%	1-100%
UV offset freely adjustable and saved for each objective	Yes	Yes
Laser beam movement	Via optics	

Microscope			
Transmitted light axis	Contrast methods	BF, optional PH, DF, POL, DIC (fully automated)	
	Illumination	12 V 100 W halogen lamp or LED (PMax = 15 W) Lamphousing	
	Automation	Automated illumination manager Automated contrast manager Constant color intensity control (CCIC) for Halogen TL	
	Condenser	Condenser head S28, 0.55 NA Motorized 7x condenser disk Motorized polarizer	
Fluorescence axis	Filter cube turret	Motorized 5x or 8x	
	Automation	Fluorescence intensity manager (FIM) for brightness adjustment Circular and rectangular field diaphragms for eyepiece or camera viewing Internal filter wheel and motorized Excitation Manager	
	Illumination	Leica EL6000 (120 W metal halide) or 100 W HBO	
	Cubes	Special cubes (size k) for simultaneous fluorescence and cutting	
Operation		LMD-BGR LMD-GFP band pass LMD-GFP long pass LMD-Cy3 LMD-DAPI	LMD-Alexa594 LMD-CFP LMD-GFP/Cy3 LMD-YFP LMD-Cy5
	Focus	Motorized: – 5 electronic ratios – Includes parfocal function Memory function for two z-positions	
	Objective turret	Motorized 7x M25 thread including dry and immersion modes	
	Controls	6 programmable function buttons Leica SmartMove Controls for z (focus) movement and x, y (stage) movement 4 programmable function buttons Optional Leica STP8000 Controls for z (coarse and fine focus) and x, y (stage) movement 11 programmable function buttons Touchscreen with information and control panels	
Stand	Display	With integrated touchscreen Leica SmartTouch	
	Interfaces	2 x USB 2.0, 2 x I ² C	
	Dimensions	With scanning stage: 649.6 mm height, 512.0 mm width, 596.5 mm depth	
	Weight	47 kg	

	Dissection and Collection Unit Based on		
Stage type	Scanning Stage	Motorized Stage	Scanning Stage LMT350
Specimen Collection	Contact- and contamination-free		
Dissection modes	Draw & Cut Move & Cut (direct online cutting) Draw & Scan (dot dissection scan) LMD screw (cut subsequently in Z-direction) Shadow Cuts		
Serial section cutting	Yes	Not recommended	Yes
AVC+ basic	Yes	Yes	Yes
AVC+ professional	Yes	Not recommended	Yes
Universal holder	Yes	No	No
Stage repeatability	+/- 1 µm	+/- 10 µm	<= +/- 0.5 µm
Stage max. travel speed	20 mm/s	20 mm/s	200 mm/s
Stage drive	Ball bearing screw	Rack / pinion	Linear motor drives
Holders	3x standard slides (25 mm x 76 mm) Optional: 1x big slide (50 mm x 76 mm) Petri dish (50 mm) 18-well slide stack	1x standard slide (25 mm x 76 mm) Optional: 1x big slide (50 mm x 76 mm) Petri dish (50 mm)	4x standard slides (25 mm x 76 mm) Optional: 1x big slide (50 mm x 76 mm) Petri dish (50 mm) 18-well Ibidi slide
Collectors	4x 0.2 ml standard PCR tubes 4x 0.5 ml standard PCR tubes Petri dish (50 mm) Optional: 2x 8-well strips building up a 96-well plate Height adjustable universal collector (for multi-well slides, 8-strips, 8-strip tube caps, ...) 48-well collector (6x8-strip tube caps)	4x 0.2 ml standard PCR tubes 4x 0.5 ml standard PCR tubes Optional: 1x 8-well strips building up a 96-well plate	4x 0.2 ml standard PCR tubes 4x 0.5 ml standard PCR tubes Petri dish (50 mm) Optional: 96-PCR-well plate 96-LCC-well plate 18-well Ibidi slide 1 x 8-strip, 1 x 12-strip 1.5 ml tube
Power supply	CTR6/CTR6 LED		Dual SP box

System software (Operating System Microsoft® Windows® 7/8/10)		
Package includes	Dissection	Automated collection devices and positioning of PCR tubes Fully automated inspection mode Multi-cutting over entire slide Save and load drawn shapes
	User guidance	Workflow based graphical user interface Free scaling of drawn shapes Save user profiles Overview images in BF and Fluorescence
	Control	Full laser control Control software of microscope stand Laser and illumination settings are linked to objectives
	Interfaces	Export shape list data for Microsoft Excel or OpenOffice
Optional software packages		Automated vision control (AVC+ basic) for automated cell recognition within field of view only Automated vision control (AVC+ professional) for fully or semi automated cell recognition over freely defined area Integrated database to transfer relevant data (laser, microscope and camera; database as optional)

Camera	Leica LMD CC7000	Leica DFC295	Leica DFC365 FX	Leica DFC7000 T	Leica DFC400	Leica DFC450 (C)
Type	Digital color	Digital color	High sensitivity digital monochrome	High sensitivity digital color	High sensitivity digital color	Digital color
Cooled	No	No	Yes, -20°K to ambient	active Peltier cooling	No	No (C) -20°K to ambient

