

From Eye to Insight



# LEICA LMD6/7

Technical Information – October 2017



# FEATURES AND SPECIFICATIONS

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

<b>Microscope</b>		
<b>Transmitted light axis</b>	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- and scanning stage) Condenser head S40, 0.40 NA (Stage LMT350) Motorized 7x condenser disk Motorized polarizer
<b>Fluorescence axis</b>	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  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
<b>Operation</b>	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 for motorized- and scanning stage Controls for z (focus) movement and x, y (stage) movement 4 programmable function buttons
		Optional Leica STP8000 for motorized- and scanning stage Controls for z (coarse and fine focus) and x, y (stage) movement 11 programmable function buttons Touchscreen with information and control panels
	Multiwheel for Stage LMT350 4 programmable function buttons 4 predefined function buttons	
<b>Stand</b>	Display	With integrated touchscreen Leica SmartTouch
	Interfaces	2 x USB 2.0, 2 x I <sup>2</sup> C
	Dimensions	With scanning stage: 649.6 mm height, 512.0 mm width, 596.5 mm depth
	Weight	Depending on configuration, max. 48 kg

	<b>Dissection and Collection Unit Based on</b>		
<b>Stage type</b>	<b>Scanning Stage</b>	<b>Motorized Stage</b>	<b>Scanning Stage LMT350</b>
<b>Specimen Collection</b>	Contact- and contamination-free		
<b>Dissection modes</b>	Draw & Cut Move & Cut (direct online cutting) Draw & Scan (dot dissection scan) LMD screw (cut subsequently in Z-direction) Shadow Cuts		
<b>Serial section cutting</b>	Yes	Not recommended	Yes
<b>AVC+ basic</b>	Yes	Yes	Yes
<b>AVC+ professional</b>	Yes	Not recommended	Yes
<b>Universal holder</b>	Yes	No	No
<b>Stage repeatability</b>	+/- 1 µm	+/- 10 µm	<= +/- 0.5 µm
<b>Stage max. travel speed</b>	20 mm/s	20 mm/s	200 mm/s
<b>Stage drive</b>	Ball bearing screw	Rack / pinion	Linear motor drives
<b>Holders</b>	3x standard slides (25 mm x 76 mm) Optional: 1x big slide (50 mm x 76 mm) Petri dish (50 mm) 18-well Ibidi slide stack	1x standard slide (25 mm x 76 mm) Optional: 1x big slide (50 mm x 76 mm) Petri dish (50 mm) 18-well Ibidi slide stack	4x standard slides (25 mm x 76 mm) Optional (combinations possible): 1x big slide (50 mm x 76 mm) 2x Petri dishes (50 mm) 2x 18-well Ibidi slide stacks
<b>Collectors</b>	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 2x Petri dishes (50 mm) Optional: 96-PCR-well plate (non-skirted or semi-skirted) 96-LCC-well plate 2x 18-well Ibidi slides 1 x 8-strip, 1 x 12-strip 1.5 ml tube (with or without filling)
<b>Power supply</b>	CTR6/CTR6 LED		Dual SP box

<b>System software</b> (Operating System Microsoft® Windows® 7/10)		
<b>Package includes</b>	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
<b>Optional software packages</b>	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)	

<b>Camera</b>	<b>Leica LMD CC7000</b>	<b>Leica DFC7000 T</b>	<b>Leica DFC365 FX</b>	<b>Leica DFC3000 G</b>	<b>Leica DMC2900</b>
<b>Type</b>	Digital color	High sensitivity digital color	High sensitivity digital monochrome	CCD monochrome	Digital color
<b>Cooled</b>	No	active Peltier cooling	Yes, -20°K to ambient	passive cooling	No

