

Specifications

Optical Scanning Microscope

Optical scanning microscope for spectroscopy applications: Brillouin light scattering, Raman scattering, optical detection of ferromagnetic resonance (ODMR), ...

Version	High precision	High load & large travel	Large travel & high precision
Optical properties			
Laser wavelength range	400 - 800 nm (laser not included)		
Max. laser beam diameter	8 mm		
Objective	Magnification: 100x, NA: 0.75, Working distance: 4 mm		
Spotsize (@532 nm)	≈430 nm		
LED sample illumination	900 mW @ 655 nm (for laser wavelengths < 590 nm) 630 mW @ 860 nm (for laser wavelengths > 590 nm)		
Camera specs	1280 px × 1024 px, 60 fps, 10-bit ADC, Monochromatic		
Camera - Field of view	≈65 μm × 50 μm		
Camera connector	USB 3		
Focus sensor	Included		
2 nd viewport	Yes, lower magnification for electrical contacting and sample overview		
2 nd viewport - Field of view	≈1.2 mm × 1 mm		
Automatic transition between viewports	no	yes (requires thaTEC:Microscopy software)	
3D Positioning system			
Type	3D Piezo stack (open-loop)	Integrated x-y-stage plus z-stage	Linear motor stages
Travel range in x-y-direction	100 μm	90 mm	160 mm × 50 mm
Travel range in z-direction	100 μm	4.8 mm	
Manual positioners travel	13 mm (x,y), 10 mm (z)		
Min. incremental motion (x,y)	< 1 nm	50 nm	1 nm
Min. incremental motion (z)	< 1 nm	60 nm	
Maximum centered load (with-out probe station)	30 N	96 N	51 N
Further specifications			
Sample mount diameter	16 mm		
Rec. max. sample size	20 mm × 20 mm		
Mounting options	Optical tables with M6 holes on 25 mm centers or 1/4"-20 mounting holes on 1" centers		
Laser input/output height	40 - 120 mm		
Dimensions	525 mm × 320 mm × 480 mm		
On-site service visit & training	Included: 4 days, worldwide		
Prices starting from	37.100 EUR	52.700 EUR	56.900 EUR

Specifications

Optical Scanning Microscope

Add-on: thaTEC:Microscopy software

Fully automated image acquisition and sample positioning
Auto focus routines via the camera image and/or via the probing laser beam
Active long-time position stabilization via pattern recognition routines
Automated scanning of user-defined regions
Automated movement along user-defined trajectories
Smart sample finder: Transition between viewport along user-defined trajectory
Full integration into the lab automation framework thaTEC:OS

Add-on: Probe station

RF probes	compatible with customized GR-style probes from GGB (probes not included)	
Frequency range	DC to 40/50/67 GHz (depending on probe model)	
Max. number of RF probes	2, each manually 3D positionable	
Travel range	10 mm (all directions)	13 mm in x-y-direction, 6 mm in z-direction

Add-on: Electromagnet

Electromagnet	Compatible with: GMW 5403, GMW 5403FG, GMW 5480EG (not included)	
Maximum field	≈ 800 mT	
Railing system for magnet	Included, to move the electromagnet and get easy access to the sample	

Low-temperature option (4 K)

Coming soon...