

# FlexWave

## Compact wavelength selection unit

- Software-controlled wavelength selector for visible and NIR spectral range
- High transmission rate for highest sensitivity
- No impact on to polarization and pulse width of the emission signals
- Fully integrated into SymPhoTime 64 software
- Designed for PicoQuant widefield and confocal microscopes

### Applications

- Semiconductor wafer testing and analysis
- Investigating solar cell materials and perovskites
- Studying minerals and crystals
- Analyzing polymers and composites
- Characterizing LED materials and displays
- Wavelength dependent single emitter studies  
e.g., antibunching



In many cases, characterizing materials such as semiconductors or solar cells requires measuring their photophysical properties with spectral information and temporal as well as spatial resolution. Depending on the sample, scanning over a sample area at a photoluminescence wavelength of interest is often required, next to point measurements at various sites. Usually sets of various bandpass filters are needed to cover several spectral ranges for different materials and PL signal. FlexWave provides a fast, easy, and reliable way to measure steady-state (from vis to NIR) and wavelength-dependent time-resolved (from ps to s) luminescence in combination with spatial resolution of a PicoQuant widefield or confocal microscope.

Thank to its flexible design different types of detectors and even several of detectors (up to 4) can be used for luminescence detection of the microscope. Hereby FlexWave is fully integrated in SymPhoTime 64 for device control to measure steady-state PL spectra as well as wavelength selected decays and even TRES spectra.

## Specifications

Optical specification				
Spectral range	400 – 1000 nm			
Transmission	> 80 % over the whole spectral range			
Bandwidth min.	1.0 nm			
Bandwidth max.	80 nm			
Step width min.	0.1 nm			
Entrance port	FC/APC fiber coupler			
Exit port	FC/APC fiber coupler			
Compatible microscopes				
Type	FluoMic	MicroTime 100	MicroTime 200	
Compatible detectors				
Type	PMA Hybrid		SPADs (MPD, Excelitas)	
Number of detectors	1 (direct mounting) – 4 (detection unit)			
Operation conditions				
PC requirements	Quad-core CPU > 3 GHz, RAM min. 4 GB			
Operation system	Windows™ 10/11			
Software	SymPhoTime 64			
Power requirements	220/240 or 110/120 VAC, 50/60 Hz			
Connection	USB 3.0 based			
Mounting	at a detection unit or via mounting points onto an optical table / breadboard			
Dimensions and weight				
Dimensions (w × d × h)	245 x 15 x 85 mm			
Weight	3.5 kg			



PicoQuant GmbH  
 Rudower Chaussee 29 (IGZ)  
 12489 Berlin  
 Germany

Phone +49-(0)30-1208820-0  
 Email [info@picoquant.com](mailto:info@picoquant.com)  
 Web [www.picoquant.com](http://www.picoquant.com)