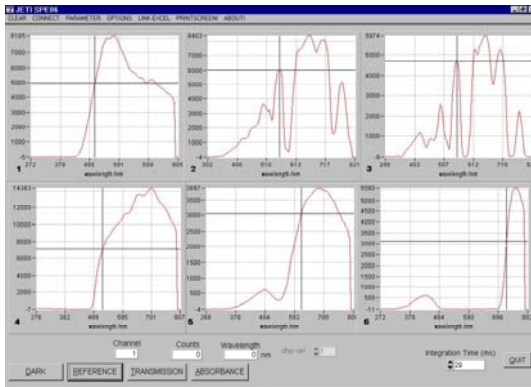


Multichannel Spectrometer SPMC

The **SPMC** multichannel spectrometer allows for the parallel reading of spectral data from eight different input sources in the VIS (or UV) wavelength range. The measurements proceed simultaneously, without a time delay between the several channels. Each channel has an own optical input. Therefore, no moveable parts are required which might reduce the reproducibility of the measurements. The amplification of each channel can be adjusted separately by software to adapt the instrument to a specific application. Furthermore, the instrument offers a trigger input and a lamp / shutter output.



The **JETI SPE(n)** software is suited for the reading of up to eight spectra, as well as making transmission / reflection calculations. Single and continuous measurement modes are possible. Data can be exported in Excel™ spreadsheet format or to ASCII data files. The optimal integration time can be found by using the automatic setting.

The **SPMC** multichannel instrument can be delivered with two different spectrometers modules — a low cost version, and a higher performance version for more demanding applications.

Specifications

	version 1	version 2
Channels (n)	8 (optional 2 ... 7)	
Connector	ST (optional SMA)	
Optical input	100 µm optical fiber (optional 50 µm fiber)	
Applications	Simultaneous spectral measurement (quality control, thickness measurement, multi-angle color measurement ...)	
Spectral range	400 nm ... 800 nm	a) 400 ... 800 nm b) 250 ... 500 nm
Wavelength precision	± 1 nm	
Spectral resolution	12 nm	9 nm
Digital spectral resolution	7.6 nm	4.1 nm
Digital resolution	14-bit A/D converter	
Stray light (GG 495, 420 nm)	typ. 10^{-2}	$< 10^{-3}$
Sensitivity (550 nm)	typ. $1.2 \cdot 10^{14}$ counts/Ws	typ. $6.4 \cdot 10^{14}$ counts/Ws
S/N ratio	10^3	$> 10^4$
Spectrometer grating detector	Embossed 128/256 pixel photodiode array	Holographic 128/256 pixel photodiode array
Integration time	5 msec ... 32 sec	
Repetition rate	max. 2 per sec	
Operation conditions	temperature: 10 ... 40°C humidity: < 85% rel. humidity (@ 35°C)	
Power supply	115 VAC (230 VAC optional) / 9 VDC	
Interface	RS-232c, 8N1, 115,000 Baud (others available on request)	
Dimensions	300 mm x 250 mm x 80 mm	
Weight	approx. 0.8 kg	
Enclosed accessories	Switching mode power supply JETI SPE(n) PC software Operations manual PC Serial cable (9-pin D connector)	
Options	Shutter drive output (TTL) Measuring trigger input (TTL)	

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