

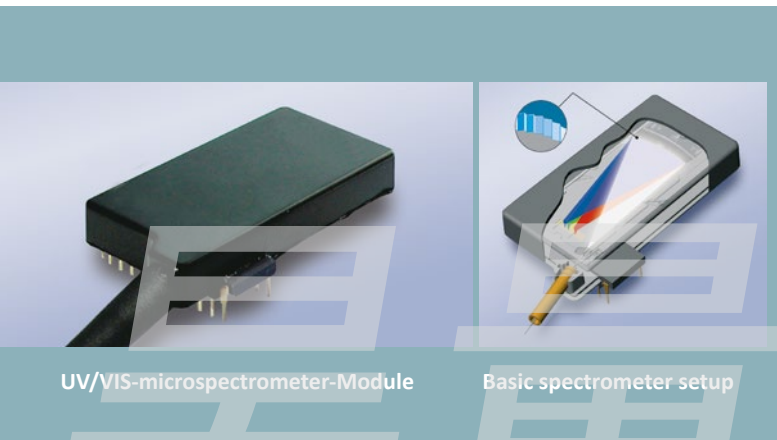


integrated spectral solutions



UV/VIS microspectrometer

Monolithic microspectrometer (OEM) for spectral sensing applications



UV/VIS-microspectrometer-Module

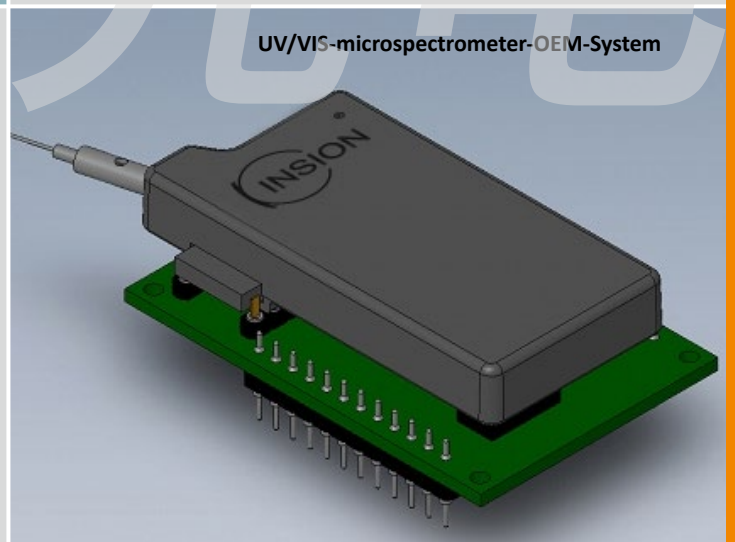
Basic spectrometer setup

Product features:

- » no moving parts
- » excellent mechanical, optical and thermal stability
- » unsurpassed price / performance ratio
- » small dimensions
- » easy and flexible handling

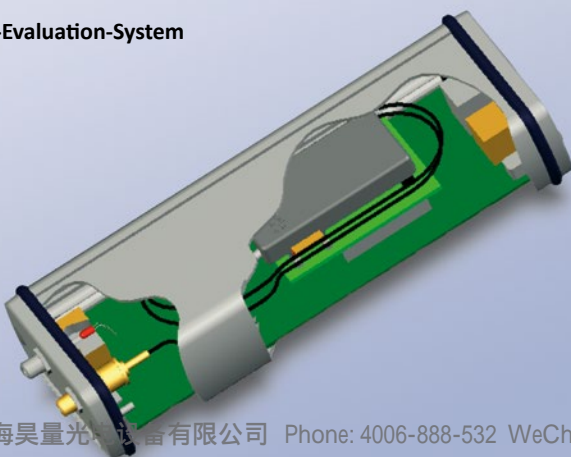
Excellent optical performance characteristics and inter instrument agreement due to a microinjection molded hollow cavity waveguide design. The use of a state-of-the-art photo detector facilitates the precise measurement in the UV/VIS range for hand held devices as well as for in-line process sensors.

Typical applications range from instrumental analysis, biological and clinical systems to colorimeters, food inspection systems and fluorescence measuring devices.



UV/VIS-microspectrometer-OEM-System

UV/VIS-Evaluation-System



Technical Data | UV/VIS microspectrometer



Entrance Fiber	300/330µm; NA = 0,22
Entrance Slit	50µm x 300µm
Reproducibility	≤ 0,1nm
Spectral Range (specified)	350 - 850nm
Spectral Range in 1st diffr. order (accessible)	330 - 1050nm
Blaze Wavelength	420nm
Thermal Wavelength Stability	< 0,05nm/K
Dispersion	3,5nm/pixel
Spectral Resolution [$\Delta\lambda_{FWHM}$]	<10 (typ. 8,5)nm
Operating Temperature	0°C to +40°C
Storage Temperature	-40°C to +60°C
Peak Sensitivity at Wavelength	540nm
Sensitivity at 650nm (with 16 bit ADC)	> 65 (typ. 110) E12 cts x nm/Ws
Signal to Noise Ratio (with 16 bit ADC)	≥ 5000 at $T_{INTEGRATION}=2ms$
Detector Array	Hamamatsu S8378-256N24
Video Output Range [V]	0 to 2,4V

	Module	OEM-System	Evaluation-System
Dimensions (LxWxH)	54 x 32 x 9,5mm	67 x 36 x 22mm	165 x 60 x 36mm
Weight	50g	170g	500g
Fiber Length/Finishing	450mm; +50/-0mm; SMA*	450mm; +50/-0mm; SMA*	Fiberoptics can be connected via SMA
Interfaces	DIL22	UART / USB2.0	USB2.0
Accessories	Product Manual	Product Manual, Interface DLL	Product Manual, Power Supply, USB cable, TTL-trigger (alternatively on request: integrated miniature light source, 2500K), Software SPECview, Interface DLL, Housing
Power Requirements	5V; typ. 25mW	USB powered or 5V (+0,2V/-0V; ripple ±25mV)	Power Supply Egston MAINY or equivalent 9V/670mA (included)

Technical data may be changed without notice
State: March 2012
*Customizing on request

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integrated spectral solutions



NIR 1.7 microspectrometer

Monolithic microspectrometer (OEM) for spectral sensing applications

NIR-microspectrometer-Module



Product features:

- » no moving parts
- » excellent mechanical, optical and thermal stability
- » unsurpassed price / performance ratio
- » small dimensions
- » easy and flexible handling

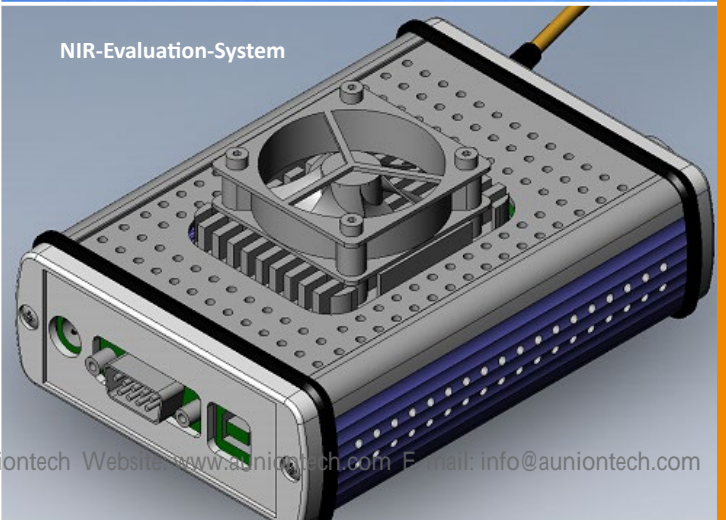
A new generation of NIR-Systems by INSION GmbH. A high grade of robustness due to an improved monolithic design, brilliant optical characteristics as well as the small dimensions open up possibilities in various new and also common applications.

They are ideal for the use in analytic and diagnostic handheld devices and highly cost efficient because of the excellent inter instrument agreement. Typical applications range from instrumental analysis, biological and clinical systems to material identification and analysis of agricultural and nutrition products.

NIR-microspectrometer-OEM-System



NIR-Evaluation-System



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Technical Data | NIR 1.7 microspectrometer



Entrance Fiber	300/330µm; NA = 0,22; low OH-
Entrance Slit	60µm x 300µm
Spectral Resolution [$\Delta\lambda_{FWHM}$]	< 16nm
Spectral Range (specified)	900 - 1700nm
Dispersion	8,2nm/pixel
Integration Time	2 - 40.000ms
Trigger In-/Output	TTL signal (e.g. to control lamps, shutter, flash lights), synchronized with measurement, adjustable delay, TTL user bit
Sensitivity at 1200 and 1500nm (with 16 bit ADC)	> 100 E12 cts x nm/Ws
Signal to Noise Ratio (with 16 bit ADC)	≥ 5.000 at $T_{INTEGRATION} = 2ms$
Detector Array	InGaAs, 128 elements
Digital Resolution	16 bit
Detector Temperature Regulation	Min. Temp = 5K below ambient temperature Max. Temp = 40°C Tolerance = ±0,03°C

	Module	OEM-System	Evaluation-System
Dimensions (LxWxH)	61 x 43 x 14,9mm	108 x 76,6 x 21,5mm	114,6 x 85 x 48,5mm
Weight	80g	130g	500g
Fiber Length	450mm; +50/-0mm		
Fiber Finishing	SMA*		
Accessories	Product Manual	Product Manual, Software SPECview, Interface DLL	Product Manual, Power Supply, USB cable, Software SPECview, Interface DLL, Housing
Power Requirements	5V	5V (+0,2V/-0V; ripple <50mV)	Egston Power Supply 6V/2A (included)
Peak Power Consumption	7,5W	7,5W	9W

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