

Title: Supernova Mini Spectrometer

Material / Specification: 190-850nm

Part number(s): OSP0201, OSP0202, OSP0203, OSP0204, OSP0205, OSP0206

The Knight Optical Supernova spectrometer is a research grade, multi-purpose system for a broad range of spectral applications. The Supernova is designed for maximum operating efficiency over a wide UVN range of 190-1110nm. Our system is equipped with a high performance UV enhanced CCD detector with integrated TEC to maximum signal to noise at long exposures during low light applications such as reflectance or fluorescence. With a 25um slit, the Supernova delivers an excellent 1nm resolution.

Designed to be fully "Plug and Play", the Supernova mini spectrometer is ready to use straight out the box. Install the supplied SpectraWiz software, plug the system in and start taking measurements without any fuss. The system can be attached directly to your PC or laptops USB port.

The Supernova mini spectrometer has no moving parts and is enclosed in a rugged case for exceptional durability making it both portable and reliable out in the field. Our systems are exceptionally tolerant of vibrations giving you confidence in your readings regardless of the working environment.

The Supernova mini spectrometer is suitable for a range of UVN applications including spectroradiometry, optical power measurements, laser characterization, thin film measurements, reflectivity and absorption. Chemical applications include chemical ID and moisture analysis. Dual and multi-beam applications can be achieved by configuring two or more mini spectrometers together using the USB-2 connections supplied.



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Directors: Mr C. G. Overton, Mrs A. E. Overton. Knight Optical (UK) Ltd is Registered in England and Wales, **Registration No.** 3755966 Registered office: 34 Bower Mount Road, Maidstone, Kent, ME16 8AU **V.A.T. Registration No.** GB 703 1430 90

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Specifications:

Model:	Supernova
Dynamic range:	2000:1 with 6 decades
Wavelength Range:	190-1100nm
Optical resolution:	1nm with 25um slit
Slit-200 nm res.	8.00
Slit-100 nm res.	4.00
Slit-50 nm res.	2.00
Slit-25 nm res.	1.00
Slit-14 nm res.	0.75
Detector type:	2048 pixel CCD/ TE cooled
Detector range:	190-1110nm
Pixel Size:	14 x 200um
“eXtreme” Gratings:	Dual Blaze @250 +1000nm
Grating Type:	100 mA @ 5 VDC Holographic 600 line
Spectrograph:	f/4, HR-Czerny-Turner
Order Sorting Filter:	Integrated & High Pass
Signal to Noise:	1000:1 CCD
Digitizer:	16-bit
Dimensions:	6 x 17 x 20.75cm
TEC Power:	5 VDC@1A adapter included
Interface Power:	USB-2 = 100ma@5VDC
Data Transfer Speed:	30Hz
Detector Integration:	1ms to 65s
Slit size options:	14, 25, 50, 100, 200um
Stray Light:	<0.1% at 435 nm; <0.15% at 200nm
Fiber Optic Input:	SMA905 0.22na single fiber
Operating systems:	Windows XP/Vista/7/8
Software included:	SpectraWiz program & apps
Also free programs for:	LabView / VC / VBA / Delphi

All our mini spectrometers are supplied with intuitive Windows XP, Vista, 7 and 8 compatible SpectraWiz software for quick and easy measuring wherever you are. SpectraWiz software is versatile, allowing for accurately measuring and displaying wavelength emissions, reflectance, transmission, absorption, concentrations and absolute intensities.

In addition to our Supernova mini spectrometer, Knight Optical also supply a range of mini spectrometer models and accessories for alternative applications, please click on the “see also” tab below, alternatively speak to our experienced, technical sales team to discover how Knight Optical’s range of high quality mini-spectrometers can improve your spectral analysis capabilities and experience.

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