



Electro Optical Components, Inc.

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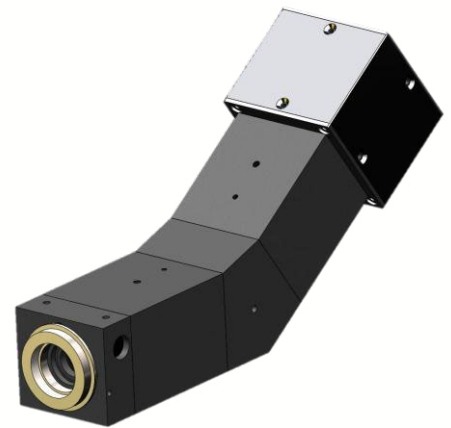
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Spectral Imaging System VNIR

The Spectral Imaging System VNIR is a high performance spectral imaging system designed for VNIR applications.



Spectrograph	
spectral range	850 – 1100 nm
dispersion	29 nm/mm
Spectral resolution	2.8 nm (with 80 µm slit)
image size	8.64 (spectral) x 10.48 (spatial) mm
spatial resolution*	rms spot radius < 30 µm
smile	< 14 µm
keystone	< 28 µm
numerical aperture	F/2.9
slit width, default	80 µm (others on request)
efficiency	> 50% independent of polarization
Camera	
sensor	CMOS enhanced in NIR range
pixels in full frame	1312 x 1082
pixel size	8 µm x 8 µm
bit depth	12 bit
frame rate	up to 108 fps full resolution
data interface	Gigabit Ethernet
power consumption	< 2.3 W
supply	3.3 V
special feature	up to 512 multiple regions of interest
Mechanics	
dimensions l x w x h	236 x 60 x 125
housing	anodised aluminium
weight	2 kg
lens mount	standard C-mount
Operating Conditions	
temperature (operating)	-5 °C - +40 °C
temperature (transport)	-10°C - +50°C

Like most inno-spec spectral imaging systems the Spectral Imaging System VNIR is based on a transmissive optical design with AR-coated lenses, a VPH grating as dispersive element and without moving parts.

By replacing the standard input slit and lens with a multichannel fiber input, the spectral imaging system can be used as a multichannel-spectrometer.

* depending on the fore optics used and the sensor size



Optical Quality

Our goals are:

- High light throughput due to high diffraction efficiency of transmission VPH grating, and AR-coated optics
- Polarization free optical design

Customized Solutions

If the application requires dedicated optics, wavelength ranges, customization can be done without large NRE costs.

inno-spec also offers compatible cameras, line lighting, accessories and spectral imaging systems for the NIR, VIS or UV wavelength range.

Accessories

- cameras
- DC-Halogen light sources in modular sizes
- fiber optic adapters to use the Spectral Imaging System VNIR as a multichannel-spectrometer.
- Mounting accessories
- Fore optics (8mm/ 12.5mm/ 16mm/ 25mm/ 35mm/ 50mm)