S76120 Mid-Infrared Spectrometer

Data sheet

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- 7.6 – 12.0 µm bandwidth
- 50 Hz full-spectrum readout rate
- High SNR
- 8-10 cm^{-1} resolution

The NLIR MIR Spectrometer is based on a novel measurement scheme that upconverts the MIR light to near-visible light. Silicon-based near-visible light detectors are far superior to MIR light detectors in terms of detectivity, speed and noise. The NLIR upconversion technology therefore brings these attractive features, and the advantages that follow, to the MIR regime.

The spectrometer comes with a simple GUI interface for easy plug-and-play measurements in various applications and also an API interface for Python and a C-compatible API (DLLs).

	S76120 Prototype
Center wavelength	7.6 – 12.0 µm
Resolution [1]	8 – 10 cm^{-1}
Exposure time [2]	1 – 200 ms
Max. Readout rate	50 Hz
Field-of-view (full angle, FWHM)	2.1 °
Bit depth	14
Dark noise std. [3]	7 counts
Minimum detectable power	200 pW/nm
Optical input	Free-space input
Polarization direction	Vertical
Maximum operating temperature	30 °C
Physical dimensions (H x L x W)	100 x 306 x 200 mm
Weight	5 kg

[1] Depending on spectral bin; resolution best at lower wavelengths.
[2] Exposure time below 10 ms behave nonlinearly; sensor collects light to some degree during readout time.
[3] At minimum exposure time.

More information available at:

Got any questions or need a quote? Do not hesitate to contact us at info@nlir.com