

ARCspectro ANIR

ARCoptix
Switzerland

DATA SHEET



Portable High Resolution Fourier Transform Spectrometer

The ARCSpectro ANIR series is a scanning Fourier Transform Spectrometer (FTS) using an exclusive micro actuated lamellar grating and operates with a single photodiode detector. ARCSpectro technology enables to overcome most issues of NIR miniature spectrometers. Actuation of the interferometer system is actively controlled and ensures a precise, reliable and miniaturized scanning system. The single photodiode detection assures highest dynamic range and signal quality and allows attractive pricing. The spectrometer is fibre based, USB powered and portable. The modular concept of ARCSpectro allows to adapt for specific applications.

Typical characteristics of the ANIR series are

- **Huge wavelength range: 900 nm - 2600 nm (or 2000-4500nm)**
- **High resolution of 8 cm⁻¹ with a high signal to noise ratio**
- **Variable gain and resolution**

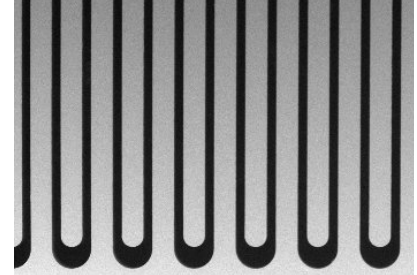
Applications

- Gas detection, Environmental monitoring, Security
- Material identification and process control
- Laser characterization

For additional information please contact:

WWW.BFIOPTILAS.COM

WWW.ARCOPTIX.COM



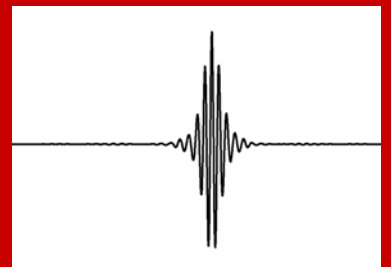
FEATURES & BENEFITS

Active laser position control allows reliable, high quality, robust, maintenance-free operation at low power consumption.

In Fourier spectroscopy **extreme wavelength range** are accessible because in principle detection range is limited only by the detector.

High resolution and High throughput are combined in Fourier transform spectroscopy because resolution is limited by the maximum scanning range and not by the entrance aperture.

Optional parameters like variable gain, variable resolution and variable scan speed permit optimization to obtain best results.



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ARCSpectro is currently providing three models of the ANIR series

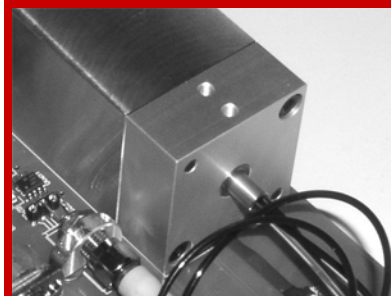
	ANIR 0.9-1.7	ANIR 0.9-2.6	ANIR-MIR 2.0-4.5
Spectral range (nm)	900 – 1700	900 – 2600	2000 – 4500
Signal to Noise	>1:1000	>1:1000	>1:1000
Detector type	InGaAs	InGaAs	Si – InGaAs

General specifications

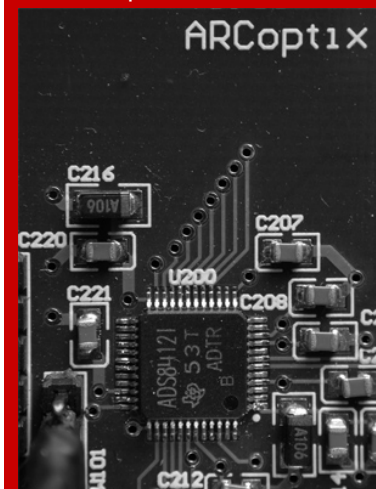
Resolution in wavenumber	8 cm ⁻¹
At 1000 nm	1.5 nm
At 1700 nm	4 nm
At 2600 nm	9 nm
Wavelengths accuracy	<0.5 nm
A/D converter	16 bit
Fiber optical connector	SMA 905
Optical fiber entrance	1 mm (Fiber core diameter)
Minimum scan time	1 s
Effective measurement time	3 s
Operating voltage	5 V (USB powered)
Operating temperature	10° - 30°C
Communication interface	UBS 2.0
Software interface	Windows XP
Product dimensions	210 mm x 100 mm x 70 mm
Weight	850 g

ARCOptix is a company located in Neuchâtel (Switzerland) in the heart of the watch valley.
For more information about ARCOptix, visit www.arcoptix.com. Tel. +41 (0) 32 731 0464

The ARCSpectro ANIR series is highly modular systems and ready for custom spectroscopy.



Interferometric module
with scanner and laser assisted position control



Modular system

- Detection Module
- DAC Module
- Communication Module
- Software Module

Further options

- Silicon photodiode
- Avalanche photodiode (Si or InGaAs)
- TE-cooled detector
- MIR detectors ($\lambda < 4.5 \mu\text{m}$)