ARCoptix Switzerland

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DATASHEET

ARCoptix FT-NIR *Rocket* 0.9-2.6µm

Fibered near-infrared Fourier-transform spectrometer

If you are looking for high performance, compact and affordable NIR spectrometer, the ARCoptix FT-NIR Rocket is the instrument that you need. Thanks to its permanently aligned interferometer and solid-state reference laser, the FT-NIR Rocket offers excellent stability in both intensity and wavelength scales. The FT-NIR Rocket fibered spectrometer is compatible with light sources and sampling accessories typically used with array-detector based NIR spectrometers. Experience the high-quality spectra of our FT-NIR!

Benefits

- Broad wavelength range 0.9-2.6µm
- High resolution of 8cm^{-1} (<1nm@1µm to <5nm@2.5 µm)
- Excellent stability in intensity and wavelength
- Very good sensitivity (very well adapted for diffuse reflectance)
- Very compact and rugged, easy to use

Applications

- Transmission, diffuse reflectance
- Light source measurement (NIR Lasers, LED, Solar,…)
- Material identification and quantification in various fields such as geology, food and beverage industry, medical diagnostics

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Specifications

Interferometer type	Permanently aligned with dual retro-reflector
Detector	Extended type InGaAs photodiode (Optionally 1- or 2-stage TE-cooled)
Reference laser	Solid-state, 680nm (optionally TE temperature stabilized)
Spectral range	0.9–2.6µm (11000–3850cm^{-1}) [i]
Resolution	8 cm^{-1} (optionally 4cm^{-1})
Minimum measurement cycle time	1 sec
Signal-to-noise ratio (SNR)	>10'000:1[ii]
Wave number repeatability	<10 PPM with optional temperature stabilized control laser [iii]
Optical fiber input	SMA 905 connector, up to 1mm fiber core diameter, NA=0.25
Communication interface	USB 2.0
Power requirements	7.5-12V (1-6W depending on versions)
Software interface	Windows XP/Vista/7/8 software
Operating temperature / humidity	5 to 35C / non condensing
Storage temperature	-10 to 60C
Dimensions	180mm x 126mm x 78mm
Weight	1.7 KG

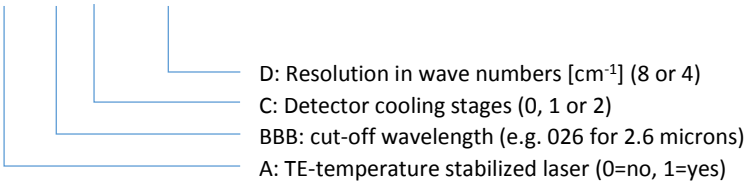
[i] The cut-off wavelength is 2.5µm with TE-cooled detectors
[ii] Measured with a HL2000-HP-FHSA halogen lamp in transmission mode, 5s measurement, around peak sensitivity wavelength, Norton-Beer weak apodization, linearly corrected baseline, resolution setting 8 cm^{-1}
[iii] Temperature-induced drift is ~70 [ppm/°C] without laser temperature stabilization

SPECIFICATIONS ARE SUBJECT TO CHANGES WITHOUT NOTICE.

Ordering Information

The FT-NIR Rocket is available in different versions:

FTNIR-L**A**-**BBB**-**C**TE-R**D**



Example:
FTNIR-L1-025-2TE-R8: with temperature-stabilized laser, cut-off 2.5µm, 2-stage cooled detector, 8cm^{-1} resolution.
Please contact info@arcoptix.com for more information.