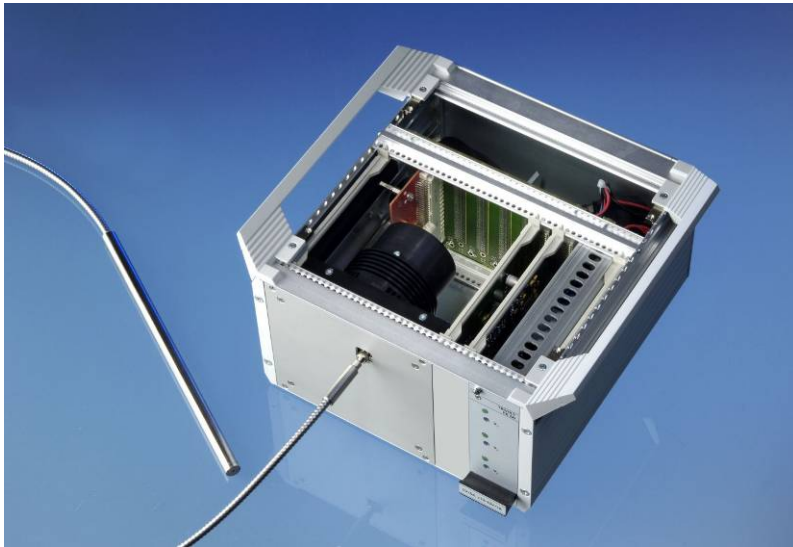


FTIR Spectrometer

Fourier-Transform Infrared Spectrometer

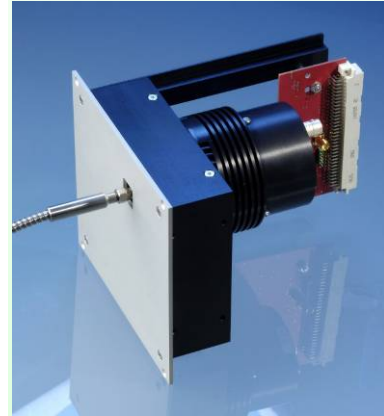
Modern MEMS technology arises the possibility to use single crystalline silicon piston mirror chips to run ultra fast and rugged FT spectrometers.



Features

- Low cost FTIR system
- MEMS technology
- Ultra rapid scan capability
~1ms time resolution
- Peltier cooled MCT detector
- Compact and portable

3HE- spectrometer module



This portable, robust and cost effective spectrometer allows FTIR techniques to be economically viable for a wider range of applications. Scan rates up to the kHz range allow real-time monitoring of transients, reactions, etc. at ms time resolutions.

Functional Principle

The Fourier-Transform (FT) spectrometer bases on a Michelson interferometer using a phase-shifting micro-mirror developed by the *Fraunhofer Institute for Photonic Microsystems*, Germany. MEMS spectrometers prove to be compact, thermally and mechanically robust and reliable.

Technical Specifications

Spectral Range	2 – 6 μm
Spectral Resolution	< 30 cm^{-1} (10 cm^{-1} under development)
Wavelength Accuracy	< 4 cm^{-1}
Measurement time	1 ms (single scan)
Size	140 x 120 x 120 mm^3 (3HE- spectrometer module)
Hardware Interface	USB 1.1
Software	Acquisition & Visualization eval. Software (Windows 2000 & XP)

Please contact us for customer specific requirements and /or additional information.

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