

Upgraded FTIR spectrometer with Ethernet delivers superior speed and performance.

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Hamamatsu Photonics Europe
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Hamamatsu Photonics launches the most compact Fourier Transform - Near Infrared (FT-NIR) Spectrometer Engine currently on the market. It is capable of producing up to 275 spectra per second with a high S/N ratio.



Hamamatsu's C16511-01 FT-NIR spectrometer

The new [FT-NIR C16511-01](#) joins Hamamatsu's spectrometer lineup, using Fourier Transform techniques in one compact, fast, and affordable package. FT-NIR spectroscopy is widely utilized in industries such as pharmaceuticals, food, agriculture, and chemicals for quality control and process monitoring as a highly effective technique that offers no compromise between light throughput and spectral resolution. Hamamatsu's new spectrometer, designed to excel in spectral analysis, renders FT-NIR spectroscopy affordable and fast, leveraging a built-in semiconductor laser to allow spectrum measurement with high wavelength accuracy.

Key features:

The new FTIR engine key features include:

- **Spectral performance:** With a spectrum response ranging from 1100 nm to 2500 nm, it can generate up to 275 spectra per second, offering the high speed needed for inline industrial applications and analytical testing.
- **Compact design:** At only 68 × 124 × 66 mm, its compact size makes it easy to incorporate into existing monitoring and analytical equipment.
- **Versatility:** The C16511-01 can analyze samples in liquid, solid, or powder form using diffuse reflection or transmittance measurement.
- **Seamless connectivity:** Equipped with an Ethernet interface, the spectrometer is fully compatible with Windows and Linux operating systems, ensuring easy integration into OEM equipment. .

- **Evaluation software:** Evaluation software is included, with functions for setting measurement conditions, data acquisition and visualization. Furthermore, the dynamic link library (DLL) function specifications are disclosed so users can create their original measurement software programs.

Applications:

This latest spectrometer is predicted to impact the industrial and academic sectors. Its exceptional sensitivity and high spectral resolution make it ideal for analysis, material testing, and quality control applications where portability and efficiency are crucial. This includes:

- Process Analytical Technology
- Material sorting and inspection
- Farm product and food inspection and sorting
- Pharmaceuticals inspection
- Plastic sorting

For more information, please visit the [C16511-01 FT-NIR spectrometer](#) dedicated product page or [contact us](#).