# MISS 2D Spectrometer

MISS stands for Mini Imaging Spatial Spectrometer. This innovative spectrometer gives access to the **spatially resolved spectrum** of your sources. Thanks to its unique compactness, the MISS allows vertical and horizontal **spatial chirp measurements** at any position of your beam path. It can easily be integrated at different stages of amplified laser systems. Use it in **free space mode to take benefit of the spatial resolution**, or with a fiber input, like a regular spectrometer.



## Key features

- Compact design
- Horizontal and vertical spatial chirp measurement
- User-friendly and powerful software
- High spatial and spectral resolution
- Different models from 240 to 1100 nm. SWIR models up to 1700 nm also available
- Input beam diameter up to 12.7 mm
- Single shot capable up to 75 kHz

## Options

- Fiber input connector
- Trigger

- High dynamic range

## Specifications

| Models | UV-VIS | IR | Yb | TiSa | UV-VIS-L | IR-L | TiSa-L | Broadband-L |
|---|---|---|---|---|---|---|---|---|
| Type | standard | | | | large beam (L) | | | |
| Spectral range (nm) | 240 – 800 | 545 – 1100 | 900 – 1090 | 725 - 875 | 250 – 700 | 650 – 1100 | 360 – 1040 | 280 – 1095 |
| Camera resolution | 2056 x 1542 3 Mpx | | | | 2448 x 2048 5 Mpx | | | 5472 x 3478 20 Mpx |
| Spectral sampling (nm/px) | 0.29 | 0.27 | 0.11 | 0.11 | 0.23 | 0.22 | 0.28 | 0.16 |
| Optical spectral resolution (nm)[1] | < 1 | < 0.8 | < 0.35 | < 0.45 | 1 - 1.5 | 1 - 1.3 | 1 - 1.5 | 0.6 - 1.1 |
| Input beam size (mm) | > 6.3 | | > 8.6 | | > 12.5 | | | |
| Max spatial resolution (µm) | < 4.5 | | | | 5.2 | | 6.5 | 3.6 |
| Exposure time min – max (ms) | 0.024 – 1 000 | | | | 0.013 – 1 000 | | | 0.011[2] – 1 000 |
| Shutter type | Global | | | | | | | Rolling |
| Detection | CMOS 12 Bits – 72 dB | | | | | | | |
| PC Interface | USB 3.1 | | | | | | | |
| Dimensions (mm) | 102 x 101 x 52 | | | | 117 x 102 x 52 | | | |

[1] resolution achieved on the highest resolved part of the spectral range
[2] due to rolling shutter, the actual minimum exposure time to capture the whole beam will be limited by the beam size. The larger the beam, the longer the required minimum exposure time.
Custom versions available on request.

## STAR Software
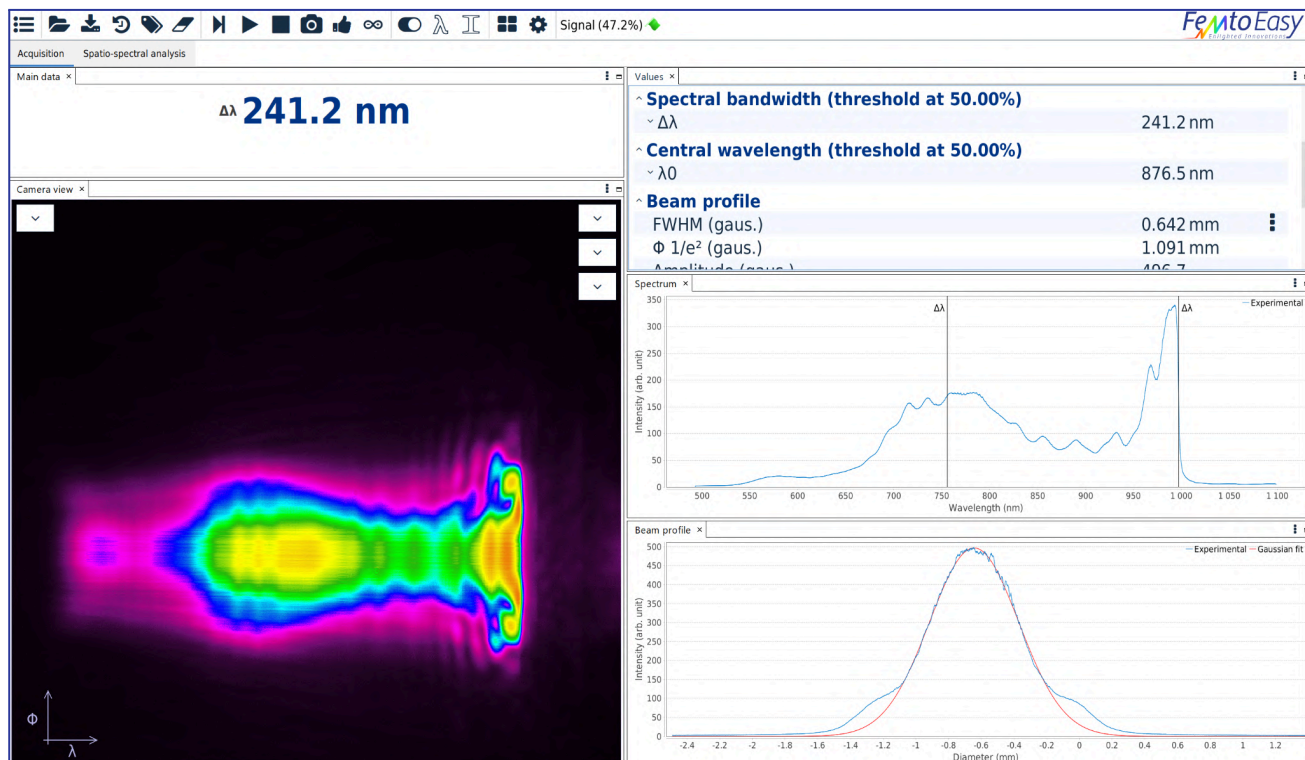


- ◆ Live extraction of spatially resolved spectra, spatial chirp, spatially resolved Fourier limited pulse duration analysis...
- ◆ Enhanced background & hot pixels treatment, for optimum dynamic and signal to noise ratio
- ◆ Client / Server interface, allowing remote control through network
- ◆ All data exportable into most common formats