

Key Features &

Benefits

SUIFTXS Supercharge your Raman Imaging!

A New Dimension in SuperFast Confocal Raman Imaging





HORIBA

SWIFT*XS* pushes the speed of confocal Raman imaging to the next level. Accelerate your chemical imaging and generate high definition Raman images in minute timescale. Now that's Supercharged Raman!

SWIFT*XS* integrates the HORIBA's newest EMCCD detector, combining unmatched speed and ultra-sensitivity.

- Supercharged Speed: Improve your sample throughput up to 1400 spectra per second.
- High Definition Images: MegaPixel Raman images are now possible in a single fast Raman map, providing both a broad overview and detailed high resolution work in a single experiment.
- Ultrasensitive: The Electron Multiplying CCD (EMCCD) technology provides significant increases in sensitivity, making it ideal for challenging samples with low signal levels.
- Fully Confocal Fast Imaging: The true confocality of HORIBA's Raman spectrometers will give you the highest resolution, image detail and flexibility for analysis of small particles and thin layers.



Structured semiconductor device mapped with SWIFTXS

 $40\,200\,\text{spectra}$ Total time = 50 s

Explore the future

Three Raman Imaging Modes

The EMCCD detector can be operated in three modes:



Standard Mode: Slow scan CCD operation For control of sensitivity, dynamic range and ultra low readout noise for low photon / slow scan applications



SWIFTXS Ultra Mode Fastest Raman imaging offering up to 1400 spectra per second for real life images in seconds.



SWIFT XS High Contrast Mode Combination of fast readout rates and enhanced signal - the best combination for difficult imaging samples and improved S/N imaging and contrast.

Applications

Standard Mode vs SWIFTXS - Polymer Blend Mapping





10 000 spectra Scan range = $100 \,\mu\text{m} \times 100 \,\mu\text{m}$ Step size = $1 \mu m$ Same acquisition time for standard mode and SWIFTXS Enhanced contrast with SWIFTXS

Bio Sensitivity - Cells in a microtubule matrix

Standard Mode



40 533 spectra Scan range = 92 µm x 71 µm Step size = $0.4 \,\mu m$ Total time = $5 \min 15s$

SWIFTXS

MegaPixel Image - Pharmaceutical Tablet



>2.6 million spectra Scan range = $1.9 \text{ cm} \times 0.9 \text{ cm}$ Step size = $8 \mu m$ High resolution images

SWIFTXS

SWIFTXS Package Includes:

SWIFTXS is compatible with HORIBA's LabRAM HR Evolution and XploRA PLUS Raman microscopes, and includes:

- Synapse EMCCD Camera Deep cooled and low readout noise
- Electronic and software optimization to reduce the CCD readout zone •







HORIBA for Supercharged Raman Imaging Check out: horiba.com/swiftxs





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