



ZEISS LSM 980 with non-linear optics (NLO) for precision, speed & depth

The LSM 980 represents Zeiss' flagship platform for high-end multiplexed confocal and multiphoton imaging, optimized for speed, gentle imaging, and spectral flexibility. Key capabilities include:



- High-performance detection: 34-channel array, enabling sensitive, flexible and instant spectral detection with superior signal-to-noise and fine detail. External non-descanned GaAsP detectors for two-photon imaging at optimal sensitivity in deep tissues.
- Super-resolution & ultrafast imaging: Airyscan 2 delivering super-resolution with acquisition speeds up to 8x faster than conventional confocal scanning – even extending the readout to molecular diffusion. Supported by joint deconvolution offers enhanced resolution down to 90 nm.
- Advanced multiphoton capabilities: Tunable multiphoton wavelength across 680-1300 nm assures optimal matching of the excitation with the fluorophore of interest and enables label-free second harmonics generation. An additional fixed 1040 nm beamline allows for targeted stimulation for optogenetics, photo-uncaging, or simultaneous dual-beam applications.
- Fully automated, stable long-term imaging: motorized XYZ positioning with drift compensation and environmental control (temperature & CO₂) enable stable long-term imaging across fields of view. Flexible software control is geared for adaptive image-based feedback (i.e. smart microscopy)

In short: the LSM 980 NLO gives you deep penetration, high multiplexing capacity, super-resolution, and unmatched sensitivity - from live dynamics to thick clarified samples. Ideal for organoids, tumor models, biopsies, intact tissues, and ex/in vivo imaging.

ZEISS LS7 for minimally invasive mesoscale imaging

The LS7 opens a complementary imaging axis for large live, or cleared samples, providing high-speed volumetric datasets with minimal photodamage.



- Sensitive, fast, gentle imaging: Designed for visualization of live organisms, tissues, organoids, embryos, and optically cleared specimens up to 2cm. Light sheet illumination restricts excitation to the plane of interest, minimizing bleaching and enabling long-term imaging.
- Flexible sample handling & optics: Compatible with refractive indices 1.33–1.58, supporting nearly all major clearing protocols. Multiple imaging and illumination objectives (5-20x; aqueous, dry, and clearing-optimized options) to match sample size and medium.
- High-efficiency detection: Dual sCMOS cameras with high quantum efficiency and large field of view permit fast, dual-color, and multiview acquisition
- Advanced optical sectioning: Pivot Scan technology for artifact-free optical sections and uniform illumination. Enables superb optical sectioning without confocal scanning, perfect for whole-organ and mesoscale imaging.

If your research involves whole organs, vasculature, embryos, large 3D models, or fully cleared tissues, the LS7 will provide unprecedented imaging depth, speed, and coverage.