

Lightsheet Z.1 Technical specs



ZEISS Lightsheet Z.1 is a light-sheet fluorescence microscope for fast 3D imaging of live transparent specimens, with low photobleaching and phototoxicity. It can also image large optically cleared samples. The system has been upgraded with Lightsheet7 5x-clearing optics and chambers, extending compatibility with clearing media from RI 1.33–1.58 and allowing imaging of larger specimens.

Laser Lines

488 nm, 50mW | 561 nm, 50mW | 638 nm, 75mW



Objectives | illumination

5x/0.1 | 5x/0.1 foc | 10x/0.2

Objectives | Detection

5x/0.16 EC Plan-NEOFLUAR foc (correction collar - RI adjustment)

5x/0.16 EC Plan-NEOFLUAR

10x/0.5 W Plan-APO

20x/1.0 W Plan-APO DIC Corr UV-VIS-IR nd=1.33

20x/1.0 Cfr Plan-APO Corr VIS-IR nd=1.38



Fluorescence filter sets

GFP | 505-545 nm & Cy3 | 575-615nm

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YFP | 525-565 nm & Cy3 | 575-615nm

Cy3 | 575-615 nm & DRAQ5 | LP 660 nm

Cameras

2 PCO.edge sCMOS Cameras | 30 fps | pixel 6.5 µm



Chambers | Environment control

Aqueous media | RI 1.33

Clearing media | RI 1.38–1.45

Large-sample chamber | RI 1.33–1.58

Temperature and incubation control (no CO2 available)