

SmartSPIM Technical Specifications

Light Sheet Formation	Dynamically axially swept light sheet (<i>Dean et al. 2015</i>)
Specimen Lateral Size	2.5 cm x 2.5 cm (standard) 4 cm x 6.5 cm (extended)
Illumination Optics	Custom designed objectives, NA = 0.15, broadband chromatically corrected
Detection Optics	180 mm EFL tube lens Objectives: 1.63X, 3.6X, 15X, 22X
Field of View (FOV)	3.6X: 3650 μm 15X: 850 μm
Lateral Sampling	3.6X: 1.8 $\mu\text{m}/\text{pixel}$ 15X: 0.42 $\mu\text{m}/\text{pixel}$
Axial Resolution	3.6X : NA = 0.2, PSFz = 3.2-4.0 μm 15X : NA = 0.4, PSFz = 1.4-2.2 μm
Camera	2048 x 2048 sCMOS with rolling shutter synchronized to swept lightsheet
Imaging Rate	20 FPS during volumetric acquisition
Laser Lines	Up to 6, 405 - 785 nm