



The Prairie SGS

Two-photon microscopy for
cutting-edge *in vivo* research
while maximizing your research budget



Prairie Technologies, Inc.

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Specifications		Prairie SGS
Scanhead	Scanning Method	Matched pair of 6 mm Cambridge galvanometers
	Scan Size	Pre-set image sizes from 64x64 to 2048x2048
	Field of View	60x obj.: ~160 μ m x 160 μ m 40x obj.: ~235 μ m x 235 μ m
	Scan Speeds	User-variable pixel dwell time: min. of .4 μ s (max. 100 μ s) variable in .4 μ s steps
		Frame rate maximum of 10 fps at 64x64 pixels in standard imaging mode
	Scan Customization	User-definable straight, freehand, spiral and circular (infinite) linescan with included software
		User-definable pixels per line and lines per scan from 1 to 2048
		Up to 128x scan zoom
		360 degrees of scan rotation
	Alternate Configurations	Point scan
Alternate Configurations	Available for <i>in vivo</i> , upright and inverted microscopes	
Uncaging	N/A	
AOD	N/A	
1P Confocal	N/A	
Detectors	Upper Non-Descanned	Configurable for 1 through 4 performance-selected Hamamatsu multi-alkali PMTs Upgradeable to high-sensitivity Hamamatsu GaAsP detectors
	Sub-Stage Non-Descanned	N/A
	Dodt	N/A
	Transmitted Light	N/A
	CCD Camera	N/A
Optical Inputs	2P Laser	Low dispersion optical path optimized for 2P laser input
	Epifluorescence	Optional epifluorescence head for fluorescence imaging
	Visible Laser	Additional light injection port for visible lasers (fiber or direct coupled) available
	LED	N/A
Motor Control	Variable Height X-Y Stage	Manual and motor-driven fine and coarse movement stage with minimum .3 μ m increments
	X-Y Platform	Optional motor-driven fine and coarse movement platform for scope with minimum .1 μ m step size and ~35 mm travel range
	Prairie Z-Motor	Standard focus motor assembly with minimum .01 μ m step size and ~25 mm travel range
	Prairie Z-Piezo	Optional Piezo device for execution of high-speed z-series acquisitions with .1 μ m step size and travel range of ~150 μ m; compatible with various objectives

Software	Prairie View Imaging	Prairie View fully integrated with the scanhead for easy imaging
		Customizable scan settings for optimization of specimen excitation
		Integrated control of laser power and PMT high voltage
	Z-Series	Easy setup of z-series with user-customizable slice number or step size
	T-Series	Easy creation of complex series involving z-series and triggered images
	Peripherals Integration	Wavelength and power control fully integrated with software for 2P and visible laser launches Can be integrated with, and control options offered for, several common stage types
	Photoactivation	User-defined points and regions for complex laser blanking
	Regions of Interest	User-defined regions for faster scanning capabilities
	Brightness Over Time	Capable of collecting BOT information for user-defined regions over time and/or depth
	TriggerSync	Optional companion program with signal inputs and outputs for electrophysiological experiments; fully integrated with Prairie View

