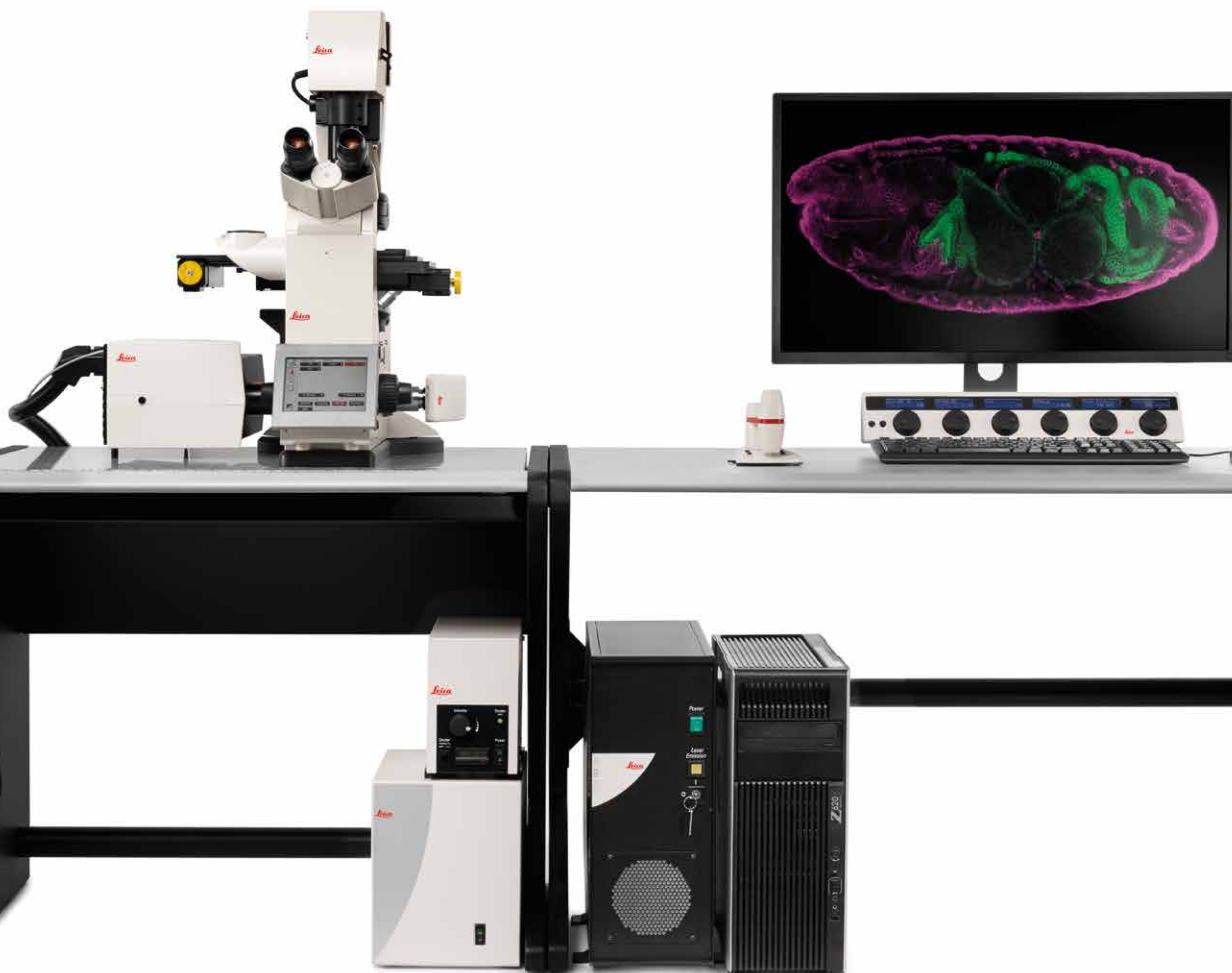


Living up to Life



# Leica TCS SPE

Technical Documentation



## Specifications Leica TCS SPE

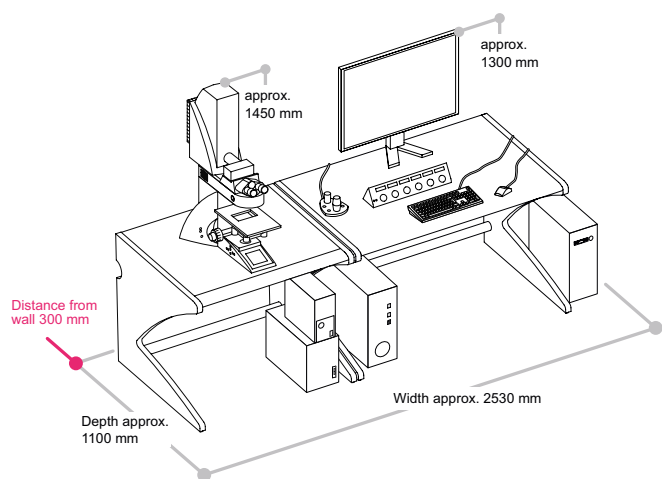
<b>Scan Head</b>	<b>Scanner</b>	Method	True Confocal Point Scanner
		Confocal channels	1
		Scanner	Galvanometer [x,y]
		Sequential scan	yes
		Channels	1–8, sequential multiplexing
	<b>Resolution</b>	Range (min–max)	[pixel] 128 <sup>2</sup> –2048 <sup>2</sup>
		Scan formats	[pixel] 128, 256, 512, 1024, 2048
		Image depth	[bit] 8 or 12, switchable
	<b>Spectral Detection</b>	Spectral detection	yes
		Type	continuously variable
		Spectral resolution	[nm] 5
		Bandwidth	[nm] 430–750
	<b>Detector</b>	Detector	1
		Detector type	selected PMT
		Detector connection	direct
		Illumination	laser
	<b>Pinhole</b>	Pinhole type	motorized, variable
		Range (min -max)	[μm] 20–600
		Pinhole adjustment	[%] 0–100
		Control	automated via GUI
	<b>Beam Splitter</b>	Laser configuration	high performance dichroics
		RGB (V)	[nm] 405/488/635
			[nm] 405/532
			[%] 30/70
		RYB (V)	[nm] 405/488/561/635
			[nm] 488/561
			[%] 30/70
	<b>Zoom</b>	Zoom type	continuously variable
		Zoom range	1x–58x
		Zoom increment	0.1
	<b>Scan Modes</b>	2D	xt
		3D	xyz; xzy
			Time xyzt; xzxt
			Lambda xyλ; xzλ
			Time xyzt; xzyt
			Time & lambda xyλt; xzλt
			Lambda xyλz
			Time & lambda xyzλt
	<b>FOV</b>	Field of view (diagonal)	[mm] 15.5
	<b>Speed</b>	Speed mode	uni-, bi-directional
		Line speed range	[Hz] 400, 600, 800, bi: 1200, 1600
		max @ 128 <sup>2</sup> bi-directional	[f/s] 6.1
		standard @ 512 <sup>2</sup>	[f/s] 2.2
		min @ 2048 <sup>2</sup>	[f/s] 0.8

## Specifications Leica TCS SPE

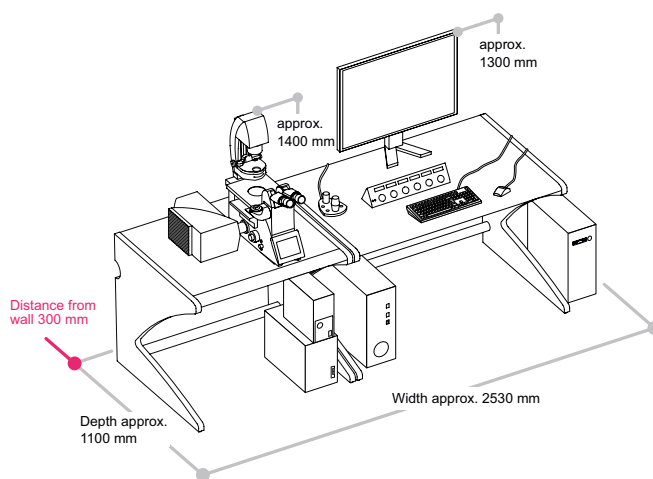
<b>Supply Unit</b>	<b>Laser</b>	Laser type	solid state
		Laser	max 4
		Laser excitation wavelength	[nm] 405, 488, 532, 561, 635
		Excitation attenuation	AOTF, direct modulation
		Excitation attenuation control	automated
<b>Monitor</b>	<b>Monitor</b>	Range	[%] 0–100
		Graphics resolution	[pixel] 1280 x 1024, 2560 x 1600 (optional)
<b>Power Supply</b>	<b>Power Supply</b>	Power supply integration	yes
		Type	autoselect
		Voltage range	[V] 100-240
<b>Z-Drive</b>	<b>Z-Drive</b>	Z focus	galvanometer stage
		Z resolution	[nm] 10
		Z focus device, other	microscope drive DM5500/DMi8
		Z range	[µm] 250
<b>Digital Cameras Support</b>		Leica DFC 365 FX Digital Camera	yes
<b>Microscope Types</b>	<b>Microscope Types</b>	upright	DM2500
			DM6
		inverted	DMi8
<b>Software</b>	<b>Export</b>	Formats	LIF, TIFF, AVI, JPEG, MOV
		<b>Modules</b>	LAS X Co-Localization
	LAS X Live Data Mode		yes
	LAS X Dye Finder		yes
	LAS X SPE D Visualization Basic		yes
	LAS X SPE D Visualization Advanced		yes
	LAS X D Analysis		yes
	LAS X D Analysis Multi Channel Extension		yes
	LAS X Deconvolution		yes
	LAS X FRAP		yes
	LAS X ENVIRONMENTAL CONTROL		yes
	HUYGENS BASE PACKAGE FOR CONFOCAL		yes
	HCS A MOSAIC BASIC SP		yes
	HCS A MULTIWELL BASIC SP		yes
	HCS A MOSAIC FULL SP		yes
	HCS A MULTIWELL FULL SP		yes
	HCS A FULL WO CAM SP		yes
	HCS A UPG TO MOSAIC FULL WO CAM SP		yes
	HCS A UPG MULTIWELL FULL WO CAM SP		yes
	HCS A DEVELOPER SP		yes

## Room Requirements

<b>Power Supply</b>	Power supply integration		yes
	Type		autoselect
	Voltage range	[V]	100 - 240
	Power consumption	[VA]	800
	Independent circuits	[no.]	1
	Frequency	[Hz]	50/60
	Fuse: standard	[A]	10
<b>Environment</b>	Humidity (noncondensing)	[%]	10–80
	Operating temperature	[°C]	18–30
	Guaranteed stability		23°C+/-2°C
<b>Load Capacity and Weight</b>	Confocal unit, max	[kg]	75
	Microscope, max	[kg]	45
	System	[kg]	120
	Static floor load	[kg/m <sup>2</sup> ]	150



Leica TCS SPE, upright system



Leica TCS SPE, inverted system

Figures are for illustrative purposes only. The system you purchase may deviate from the illustrations shown here, and Leica Microsystems CMS GmbH reserve the right to change the specification without prior notice.

