



Living up to Life

## Leica TCS SP5

High speed and high resolution spectral confocal

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### Overview



#### Reach High!

#### The Only Broadband Confocal.

As the only broadband confocal, the Leica TCS SP5 fully covers the main requirements in confocal and multiphoton imaging with optimal overall performance and provides the full range of scan speeds at highest resolution.

With its well proven high efficiency SP-detection (five channels simultaneously) and optional AOBS for dynamic beam splitting, the Leica TCS SP5 delivers bright, noise-free images with minimal photodamage at high speed.

The system is the platform for the new fixed stage microscope DM6000 CFS for physiological and electrophysiological experiments and for the new superresolution fluorescence microscope Leica TCS STED.

### Key Features

#### • Conventional Scanner

- True confocal point-scanning - real optical sectioning
- Extra large field of view (21 mm)
- 64 Megapixel images (8k x 8k)
- Beam park data acquisition
- Spot-bleaching FRAP
- Zoom and pan function
- Slow scan mode
- Up to 5 confocal channels simultaneously
- 2-channel SP FLIM (Spectral Fluorescence Lifetime Imaging)

#### • Resonant Scanner

- True confocal point-scanning - real optical sectioning
- Large field of view (15 mm)
- Zoom and pan function
- 16,000 lines per second
- 250 frames per second
- 25 frames per second 512 x 512
- Up to five confocal channels simultaneously

#### • Tandem Scanner

- Conventional and resonant Scanner in one system
- Switch by computer controlled super precision mechanical actuator

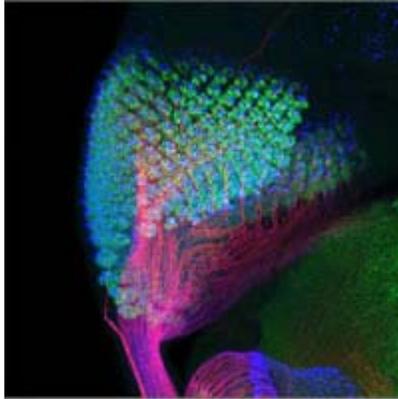
#### • Spectral Imaging Detector

- Five confocal channels
- True confocal point-scanning - real optical sectioning
- High dynamic sensors
- Low dark current PMTs
- High efficiency prism spectrometer
- Loss-free band selection

- Free tunable emission bands
- Any dye adaptable
- Five bands simultaneously
- Dye separation: sufficient for five channels simultaneously



## Detailed Description



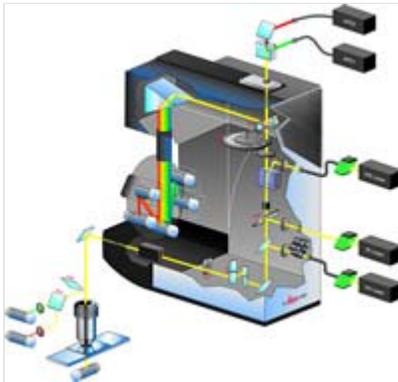
### High Speed and High Resolution - All in One

The Leica Tandem Scanner combines two technological solutions in one system: a conventional scanning system - ideal for morphological imaging and three dimensional structure analyses, and a resonant scanning system - the best solution for high speed confocal imaging.

Merging both systems into one single device, the TCS SP5 is the ideal solution for imaging core facilities and other multi-user environments.

### The Fastest True Confocal

The combined efficiency of the Leica SP® detection system and the Leica AOBS® guarantees best signal to noise – which means clear and crisp images and least bleaching during image acquisition. Easy operation and a minimum of maintenance save time and money and ensures more results in less time.



### Leading in Multispectral Imaging

The combined efficiency of the Leica SP® detection system and the Leica AOBS® guarantees best signal to noise – which means clear and crisp images and least bleaching during image acquisition. Easy operation and a minimum of maintenance save time and money and ensures more results in less time.

### Intelligent and Intuitive Interface

Leica LAS AF is the new platform for all software by Leica Microsystems. The perfect compatibility of different applications with different hardware covers the whole range of microscopy

and imaging.

The clearly structured user interface is designed for easy, ergonomic use. It guides you through all necessary steps, showing the current options while hiding currently irrelevant ones. This concept particularly applies for all Leica Application Wizards such as FRAP, FRET, FCS.

