Leica TCS SP2

Spectral confocal & multiphoton system

- Overview

Laser Scanning Spectral Confocal Microscope - Superior Image Performance - More Results in Less Time
Bright images
High experiment throughput
Flexible experiment setup
Simultaneous multi-spectral scanning
Application oriented optics
Dye finder function
Realtime xy scanning

Key Features

- Full Spectrum Confocal...
- ...Only with the Leica TCS SP2
- Scanhead is user-switchable between upright and inverted microscopes and alignment-free for lifetime
- Filter-free prism spectrophotometer head - design your own filters, maximize sensitivity, minimize crosstalk, record emission spectra
- UV, visible confocal and multiphoton microscopy in one system
- Superior UV performance with lens specific correction systems
- Extra-large 22mm scan field for larger specimen view
- K-Scanner for perfect resolution, higher scan speeds and scan rotation
- Better resolution with adjustable pupil illumination
- More digital resolution - 4096 levels (12 bit) in 7 dimensions
- State-of-the-art electronics with real-time response
- Interactive LCS software, configured to your needs
- Multi-dimensional image processing engine
- Tactile feedback with digital control knobs
• Full range of application packages
• Powerful macro control

Detailed Description

Highly sensitive spectral detector, 1 – 4 simultaneous channels
Continuously adjustable bandwidth and center wavelength
Spectral steepness factor Up to 12 bit digitization per channel
Transmitted light detector
Non-descanned dual channel transmission detector (MP)
Non-descanned dual channel reflection/fluorescence detectors (MP)
Upright Leica DM R, RXE, RX, RXA 2, LFSA; Inverted Leica DM IRB, IRE 2
Precision focusing nosepiece (DM RXE)
High resolution z-stage
Ar UV 351, 364nm; HeCd 442nm; Ar 457nm, 488nm, 514nm; ArKr 488nm; Kr 568nm; HeNe 633nm
Ti:Sapphire (MP)
AOTF 4 to 8 channels, visible range; AOTF, UV range
EOM, IR range
UV and MP possible in one system
Field-upgradable to MP microscopy
UV system with individual objective correction lenses
Adjustable pupil illumination
One pinhole, variable diameter size
K Scanner with two independent galvanometers
Line frequency: up to 2800 lines/second
Frame rates: 3 fps (512 x 512 pixels), 25 fps (512 x 32 pixels)
Scan resolution: up to 4096 x 4096 pixels
Scan zoom 1 – 32x
Scan rotation –5 to +95 degrees
Scan field: 22 mm diagonal in intermediate image plane
Trigger-in/out ports
8 detector channels, 12 bit digitisation, simultaneous
High performance PC workstation
One or two monitors
Fully operator-configurable user interface
Intuitive and guided
Context-sensitive online help system
Multi-dimensional series acquisition
Supported by direct-access digital control knobs
Region of interest scan
Excitation multiplexing
Emission spectrum recording
Time-lapse recording
Surface reconstruction
Multiple measurement functions
Physiology software
Multi-color software
3D software with multiple reconstruction rendering & functions
Macro developer software