**Leica SP8 upright**

An upright fluorescence confocal microscope equipped with four excitation lasers, dipping objectives with long working distance, oil immersion objective and 1x HyD detector and 2x PMTs. Presence of camera, epifluorescence lamp and removable infrared filter allows also widefield imaging in infrared area. Accessory for electrophysiological experiments is also available. For more detailed microscope characteristics please see the section “Microscope”.

**Application**

* Fast and multi-color confocal imaging
* Fast and multi-color widefield imaging
* Various measurement options: z-stack, time series
* Spectral imaging, measurement of emission spectrum
* Option of infrared detection in widefield imaging
* Brightfield and polarized light microscopy

**Microscope**

An upright confocal microscope DM6 CFS with a laser scanning confocal head Leica TCS SP8, a manual microscope stage, Best focus control, transmitted light LED U-12V, removable infrared filter, square pinhole of tunable size and following units:

|  |  |
| --- | --- |
| Software | **LAS-X** |
| Epifluorescence lamp | Leica EL6000 |
| Lasers | **405, 488, 552, 638 nm** (all cw) |
| Beamslitters | DD 488/552  TD 488/552/638  RT 15/85 |
| Filter turret  – filter cubes for epifluorescence lamp | **DAPI**  325-375  400  435-485  **FITC** 460-500  505  512-542  **RHOD** 541-551  560  565-605  **CY5** 590-650  660  662-738 – not inserted  Analyser |
| Objectives | HC APO L **10x (W), NA 0.30**, WD 3.7 mm, dipping objective  HC FLUOTAR L **25x (W), NA 0.95**, WD 2.5 mm, dipping objective  HC PL APO CS2 **63x Oil, NA 1.40**, WD 0.14 mm  Two objectives are installed at maximum. |
| Scanner | FOV SP8 scanner  - maximal sampling 8192x8192px,  - speed 1-1800 Hz (7fps@512x512 px)  - hardware zoom 0.75x-48x |
| Detection | **Transmitted light detector** (PMT)  **Internal spectrally tunable detection unit**   * **1x HyD detectors** (GaAsP, 400 – 720 nm, Modes: Standard, Counting, BrightR), QE=45%@500nm * **2x**  **PMT detectors** (400-800nm), QE=30%@500nm   **Camera DFC365 FX** (Leica)   * 1392 x 1040 pixels * 6.45 μm x 6.45 μm * CCD sensor Sony ICX285 * C-mount 0.7x |