## TECHNICAL DATA

## SpectroLight 600

Laser diode	✓ Wavelength: 660 nm, optical power: 120 mW, adjustable  □ other wavelengths (e.g. 785 nm)
Detector	<ul> <li>✓ Photomultiplier tube, dark count rate &lt; 300 Hz quantum efficiency 5-7%, count sensitivity 1.5*10<sup>5</sup> Hz/pW</li> <li>✓ For single photon counting</li> <li>✓ Scattering angle 142°</li> <li>□ Avalanche photodiode, higher sensitivity for λ &gt; 660 nm (optional)</li> </ul>
Correlator	<ul> <li>✓ Multi-tau architecture correlator to cover a wide sample time range</li> <li>✓ Sample time from 400 ns to 30 s</li> <li>✓ Total 208 channels, quasi logarithmic channel spacing</li> </ul>
Sensitivity	✓ Sample concentration with standard laser (660 nm)  ✓ Minimum 0.1 mg/ml for ~30 kDa proteins and 0.3 mg/ml for ~14 kDa proteins (e.g. for lysozyme)  ✓ Maximum > 100 mg/ml
Imaging system	<ul> <li>✓ Built-in microscope</li> <li>5 magnification steps: 0.63, 1.25, 2.0, 3.2, 6.4</li> <li>Field of view: 10.5x7.6, 5.2x2.9, 3.3x2.5, 2.0x1.5, 1.0x0.75 mm</li> <li>Resolution: 25 μm, 13 μm, 8 μm, 5 μm, 2.5 μm per pixel</li> <li>✓ CCD colour camera 1600 x 1200 pixels</li> <li>□ other resolutions (optional)</li> </ul>
Illumination	✓ Bright light integrated LED  □ UV by external light source (optional)  □ colour light source (optional)
Temperature control	✓ Built-in temperature control ✓ Range 10 to 45°C (at ambient temperature 20°C)
Sample properties	✓ Minimum droplet volume about 20 nl ✓ Particle sizes from 1nm to approx. 6 μm
Sample container	<ul> <li>✓ Plates in SBS format</li> <li>Sitting drop: e. g. MRC 96 well, Maxiplate 48 well,</li> <li>Hanging drop: Cellstar</li> <li>Others: Costar 3590, LCP plate</li> <li>✓ Terasaki microbatch plates (with adapter)</li> <li>□ customized sample holder (optional)</li> </ul>
Hardware	✓ Table top system 650 mm x 270 mm x 450 mm (LxWxH) ✓ Weight: approx. 26kg ✓ Power consumption: 115 to 230 V, 100 W ✓ Mini PC attached to monitor (22 inch)
Software features	✓ SpectroLight 600 software "SpectroCrystal" runs on Linux □ ✓ Fully automated plate scanning with unique drop finding algorithm for DLS ✓ Integrated LIMS database for storage and retrieval of images and DLS data
	✓ Multi workstation remote data management software "Remote LIMS"  ✓ Control of light source parameters  ✓ Live display of camera image  ✓ Graphical histogramming software  ✓ Radius distribution 2D and 3D  ✓ Autopilot for scheduling of your individual measurement program  ✓ Automated laser intensity adjustment  ✓ Surface interaction (B22) and diffusion interaction parameter (kD) determination  ✓ Individual DLS scan evaluation and management
	✓ Scattered Light weighted, Mass weighted and Number weighted statistics ✓ Autoscoring and userscoring options for DLS data ✓ Userscoring options for imaging data ✓ Multiple data export functions including customizable reporting options □ connection to external data base (optional) □ connection to plate handling system (optional)