Spectrometer ASP-150C (ASP-150T)

- Tunable
- Compact
- High resolution up to 0.017 nm
- USB interface
- No power supply unit
- Synchronization input/output

Product overview

The ASP-150C spectrometer is an ideal choice for a wide variety of different optical applications with its flexible tuning and high resolution. The ASP-150T model is able to carry out measurements in a wider spectral range without any losses in resolution, owing to a special rotating mechanism.

There is always a place for the ASP-150C on the optical table due to its small size, functionality and friendly interface. Models ASP-150CF and ASP-150TF have the special fiber input with a spectral slit, the size of which is conditioned with the detector. It allows measurement of either free-space or fiber signals without any realignment. However, it is not recommended to use fiber to measure spectrum of a femtosecond laser due to signal modulation and subsequent spectrum distortion.
# ASP-150C(ASP-150T) technical specifications

<table>
<thead>
<tr>
<th>Optical scheme</th>
<th>Cherry-Turner</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spectral range for choosing the registration domain, nm</td>
<td>190-1100, 190-1100, 190-1100, 190-1100, 190-800, 190-450, 190-300</td>
</tr>
<tr>
<td>Grating, grooves/mm</td>
<td>200, 300, 400, 600, 1200, 1800, 1800 Il order, 1800 Ill order</td>
</tr>
<tr>
<td>Registered spectrum region width, nm*</td>
<td>950, 640, 480, 315, 145, 90, 40, 25</td>
</tr>
<tr>
<td>Spectral resolution, nm</td>
<td>0.6, 0.42, 0.3, 0.2, 0.09, 0.06, 0.025, 0.017</td>
</tr>
<tr>
<td>Dispersion, nm/mm</td>
<td>33.2, 22.4, 16.8, 11.0, 5.1, 3.1, 1.4, 0.9</td>
</tr>
<tr>
<td>Input slit, μm</td>
<td>15</td>
</tr>
<tr>
<td>Focal length, mm</td>
<td>150</td>
</tr>
<tr>
<td>Focal length of the camera objective, mm</td>
<td>150</td>
</tr>
<tr>
<td>Relative aperture</td>
<td>1:13</td>
</tr>
<tr>
<td>Array</td>
<td>Toshiba 1205D</td>
</tr>
<tr>
<td>Number of cells</td>
<td>2048</td>
</tr>
<tr>
<td>Cell width, μm</td>
<td>14</td>
</tr>
<tr>
<td>Cell height, μm</td>
<td>200</td>
</tr>
<tr>
<td>Minimum exposure time, ms</td>
<td>7</td>
</tr>
<tr>
<td>Maximum exposure time, s</td>
<td>4</td>
</tr>
<tr>
<td>Sensitivity, V/lx*s</td>
<td>80</td>
</tr>
<tr>
<td>Antiblooming***</td>
<td>yes</td>
</tr>
<tr>
<td>Meansquare noise of reading, counts of ADC</td>
<td>5,4</td>
</tr>
<tr>
<td>ADC</td>
<td>12 bit, 4096 counts</td>
</tr>
<tr>
<td>Dynamic range</td>
<td>1000:1</td>
</tr>
<tr>
<td>Fiber input****</td>
<td>FC, 400 μm UV fiber cable included (1 m.)</td>
</tr>
<tr>
<td>Synchronization</td>
<td></td>
</tr>
<tr>
<td>PC connection</td>
<td></td>
</tr>
<tr>
<td>Dimensions, mm</td>
<td>76x115x241.5 (ASP-150T); 76x115x204.5 (ASP-150C)</td>
</tr>
<tr>
<td>Weight, kg</td>
<td>1.6</td>
</tr>
</tbody>
</table>

* - The necessary width and center of the registered range should be specified when placing an order. The ASP-150T has an operational range adjustment function.

** - The Hamamatsu arrays provide for sensitivity control via special driving signal, that can set either low () or high sensitivity mode.

*** - Antiblooming - the property of the CCD to prevent the charge flow from the neighboring overexposed pixels.

**** - For models ASP-150CF and ASP-150TF.