Features and Benefits

- **High collection efficiency ultrafast F/1.8 aperture**
  Up to 6.5 times better light collection efficiency than traditional 1/3"m Czerny-Turner designs
  100 % light collection from NA=0.22 fibre optics

- **On-axis imaging-corrected design**
  Superb optical aberration correction across a large focal plane for superior spatial resolution and high density, low crosstalk multi-track (multi-fibre) acquisitions
  Gather more photons per pixel- increased signal-to-noise ratio

- **High throughput optical design**
  High transmission volume phase holographic (VPH) gratings with state-of-the art optics - maximum optical efficiency for visible or near-infrared range

- **Low scattered light**
  ‘Smooth’ sinusoidal refractive index VPH gratings profile greatly reduces stray light - maximizes detection dynamic range and signal-to-noise

- **Compact and rugged design**
  Pre-aligned and pre-calibrated, out-of-the-box operation, excellent thermal stability and easily transportable

- **Easily interchangeable accessories**
  ‘Snap-in’ accessories, including precision slits and pre-aligned grating assemblies

- **Specialized Raman grating options**
  Optimized for Stokes/Anti-Stokes, low-frequency or high-frequency Stokes operation, 514.5 to 830 nm laser options

- **Optional integrated Rayleigh filtering unit**
  Fully-enclosed SuperNotch Plus Kaiser filter compartment with user-friendly external adjustment

- **Seamless integration with Andor’s world class Spectroscopy detectors**
  Combine high optical throughput and ultra-sensitive CCD, ICCD and EMCCDs cameras for maximum photon collection

Gathering more photons... at pace!

Working with challenging photon fluxes? Need results in milliseconds, not minutes?

The superb light collection efficiency capabilities of the superfast F/1.8 Andor HoloSpec spectrograph platform provides a perfect match to Andor’s ultra-sensitive CCD, EMCCD and ICCDs detectors, offering the most sensitive and versatile detection solution on the market for Visible or Near-Infrared spectroscopy.

The Andor HoloSpec is the ideal solution for collecting more light and achieving better signal-to-noise ratio faster, which is critical for applications such as micro-Raman mapping, microfluidics, real-time medical diagnosis (point-of-care analyzers) or stand-off bacteriological agents or explosives detection.

The HoloSpec also offers aberration-corrected optics for excellent multi-track capabilities, with high density fibre optics to enable simultaneous acquisitions with extremely low crosstalk, even on narrow spectroscopy sensors.

Its rugged and compact design makes it an ideal tool for challenging industrial or in-the-field applications, while still offering research-grade performance suitable for academic research.

Application focus

- **Chemical mapping – micro-Raman (e.g. SERS or TERS-based) or micro-fluorescence mapping**
- **Microfluidics – e.g. spectral flow cytometry**
- **In-vivo medical diagnosis**
- **Stand-off gated Raman or LIBS**
- **Process control**
Superior detection capabilities- 4 reasons to make every photon count

2 Superb multi-track capabilities
Imaging-corrected optical system for superior, high density multi-channel spectroscopy (See page 3 for details).

3 Low stray light gratings- higher dynamic range
The ‘smooth’ refractive index structure of volume phase holographic (VPH) gratings scatters less unwanted light than the typical surface relief structure of conventional ‘ruled’ gratings.

4 Choose the most sensitive detectors on the market
- iDus 416 ‘low-dark current deep-depletion’ CCD- superior near-IR detection with up to 95% QE at 800 nm.
- Newton EMCCD— unmatched sensitivity in the UV-visible range, superfast kHz acquisition capabilities, single photon sensitive.
- iStar ICCD— nanosecond-gated detector for recording fast transient phenomena.

Superior light gathering power- when every photon counts

<table>
<thead>
<tr>
<th>Spectrograph entrance plane</th>
</tr>
</thead>
<tbody>
<tr>
<td>F/4.0 Czerny-Turner spectrograph</td>
</tr>
<tr>
<td>F/4.6 Czerny-Turner spectrograph</td>
</tr>
<tr>
<td>F/1.8 HoloSpec</td>
</tr>
</tbody>
</table>

Light collection varies with $1/(F/#)^2$ - the lower the F/# the higher the accepted light cone angle into the system, therefore the higher the collection power (see figure above).

See technical note Andor HoloSpec- the high throughput spectrograph

Spectroscopy applications where throughput matters:

- **Intrinsically photon-starved experiments...**
  e.g. Quantum dot photoluminescence, micro-Raman of biosamples, micro-photoluminescence of carbon nanostructures, plasmonics spectroscopy of light harvesting complex or organic light-emitting diode (OLEDs), cathodoluminescence, stand-off chemical detection.

- **When acquisition time is a constraint...**
  Gather enough photons in short periods of time while accessing meaningful signal-to-noise ratio.
  e.g. micro-spectroscopy chemical mapping, micro-fluidics such as spectrally-resolved flow cytometry, on-line process control.

- **Minimizing photodamage of photo-sensitive samples...**
  Protect samples from photodegradation and phototoxicity – achieve meaningful signal-to-noise ratio in shorter timescales to minimize over-exposure to excitation sources e.g. biomaterials such as live cells or luminescent biotags.

<table>
<thead>
<tr>
<th></th>
<th>HoloSpec</th>
<th>300 mm CZT spectrograph</th>
<th>320 mm CZT spectrograph</th>
</tr>
</thead>
<tbody>
<tr>
<td>F/#</td>
<td>1.8</td>
<td>4.0</td>
<td>4.6</td>
</tr>
<tr>
<td>Numerical aperture (NA)</td>
<td>0.27</td>
<td>0.12</td>
<td>0.11</td>
</tr>
<tr>
<td>Cone angle (air)</td>
<td>30.1</td>
<td>14.3</td>
<td>12.4</td>
</tr>
<tr>
<td>Light gathering power comparison</td>
<td>-</td>
<td>HoloSpec is 4.9x better</td>
<td>HoloSpec is 6.5x better</td>
</tr>
</tbody>
</table>

**AND**

HoloSpec gathers 100% of light from traditional silica-silica F/2.22 (NA=0.22) fibre optics.
Exceptional high-density multi-track capabilities- for superior photon collection

**Figure 1:** Image of a very high density 19 x 100 μm core (125 μm inc. cladding) fibre optic bundle at the output focal plane of a HoloSpec. Broadband source captured from 532 - 609 nm with a Newton EMCCD DU971P-BV.

**High-density multi-track AND high throughput**

The HoloSpec advanced imaging corrected optics allow clear separation of individual channel images from densely packed fibre optics bundles. Up to 32 x 100 μm core fibre channels can be individually resolved over a 4 mm high sensor with low crosstalk despite the high density fibre bundle configuration. Crosstalk can be further reduced by:

- Reading the sensor in multi-track mode with narrow track height
- Using fibre bundle with alternating ‘Live’ and ‘Dead’ channels to offer zero crosstalk between consecutive tracks

**Figure 2:** Vertical intensity profile cross section of image in figure 1 at centre and edges of the focal plane.

**Figure 3:** Direct comparison of HoloSpec throughput with Czerny Turner (CZT) systems. Each with 1200 g/mm gratings optimized for the 500-600 nm region. Numbers refer to focal lengths (mm).

**Holospec in action**


In situ Raman spectroscopy for the evaluation of solubility in supercritical carbon dioxide mixtures, I. Rodriguez-Meizoso et al., The Journal of Supercritical Fluids, 65: 87-92. doi: 10.1016/j.supflu.2012.03.002 [2012]


Have you found what you are looking for?

Need a higher spectral resolution? Andor’s motorised, research grade Shamrock Czerny-Turner spectrographs offer 500 & 750 mm focal lengths.

Need to work in the SWIR regions? Andor’s Kymera and Shamrock series can be configured with silver-coated optics for enhanced collection efficiency in the NIR-SWIR with Andor iDus InGaAs detectors.
HoloSpec F/1.8- ideal for general broadband Spectroscopy

<table>
<thead>
<tr>
<th>Parameter</th>
<th>HOLOSPEC-F/1.8-VIS</th>
<th>HOLOSPEC-F/1.8-NIR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Optimized operation wavelength (nm)</td>
<td>450-730</td>
<td>800-1,060</td>
</tr>
<tr>
<td>F/# aperture</td>
<td>F/1.8 (across entire plane)</td>
<td>F/1.4 @ centre F/1.8 @ edges</td>
</tr>
<tr>
<td>Focal length (output/input, mm)</td>
<td>85/75</td>
<td>85/75</td>
</tr>
<tr>
<td>Magnification</td>
<td>1.13</td>
<td>1.13</td>
</tr>
</tbody>
</table>

Key

1. **Base unit**
   - HOLOSPEC-F/1.8-VIS – Visible range
   - HOLOSPEC-F/1.8-NIR – Near IR range

2. **Gratings**
   - HS-H**-*** - See ‘Broadband’ volume phase holographic gratings table on page 6 for Broadband or Raman-specific options

3. **Detector**
   - Please refer to the iDus CCD, Newton CCD & EMCCD and iStar ICCD specification sheets to select the best detector for your wavelength range and desired resolution

4. **Detector flange**
   - HS-FLG-CCD – For Spectroscopy CCD, EMCCD and ICCD detectors
   - HS-SHT-9005 - Ø35 mm shutter with flange assembly for Spectroscopy CCD, EMCCD and ICCD detectors (shutter driver ACC-SD-VED24 must be ordered separately)

5. **Input accessories**
   - HS-EXSLIT-INAD – Entrance slit mount for input slit (one required per system with a slit input configuration)
   - HS-SLT-INPUT-**** – Entrance slits, (require one HS-EXSLIT-INAD to be ordered per system), See Inputs & Intermediate Slits table on page 6 for available options
   - HS-FOI-FC - FC fibre adapter
   - HS-FOI-SMA - SMA fibre adapter
   - HS-ASM-8081 - Ø11 mm fibre ferrule X-Y adjuster (cannot be used in conjunction with input slit)
   - HS-ASM-0101 - 30 mm cage adapter input
   - Ferrule multi-track fibre adapters*¹

6. **Additional input accessories**
   - Integrated Raman probes*¹

Dimensions L x W x H
- 250 x 190 x 170 mm [inches]
- 10 x 7.5 x 6.7

Weight kg [lbs]
HoloSpec F/1.8i- ideal for Raman applications

<table>
<thead>
<tr>
<th>Parameter</th>
<th>HOLOSPEC-F/1.8i-VIS</th>
<th>HOLOSPEC-F/1.8i-NIR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Optimized operation wavelength (nm)</td>
<td>450-730</td>
<td>800-1,060</td>
</tr>
<tr>
<td>Integrated Notch filter chamber</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>F/# aperture</td>
<td>F/1.8 (across entire plane)</td>
<td>F/1.4 @ centre F/1.8 @ edges</td>
</tr>
<tr>
<td>Focal length (output/input, mm)</td>
<td>85/75</td>
<td>85/75</td>
</tr>
<tr>
<td>Magnification</td>
<td>1.20</td>
<td>1.20</td>
</tr>
</tbody>
</table>

Dimensions L x W x H mm [inches] 440 x 190 x 170 [17.3 x 7.5 x 6.7] 
Weight kg [lbs] 8.2 [18]

Key
1 Base unit
HOLOSPEC-F/1.8i-VIS – Visible range 
HOLOSPEC-F/1.8i-NIR – Near IR range
2 Notch filters
HS-HSFF-*** - See Notch Filters table on page 6 for specific laser wavelength options
3 Gratings
HS-H**-*** - See ‘Raman’ volume phase holographic gratings table on page 7 for Raman-specific options
4 Detector
Please refer to the iDus CCD, Newton CCD & EMCCD and iStar ICCD specification sheets to select the best detector for your wavelength range and desired resolution
5 Detector flange
HS-FLG-CCD – For Spectroscopy CCD, EMCCD and ICCD detectors 
HS-SHT-9005 - 035 mm shutter with flange assembly for Spectroscopy CCD, EMCCD and ICCD detectors (shutter driver ACC-SD-VED24 must be ordered separately)
6 Intermediate accessories
HS-SLT-INTER-**** – Intermediate slits, See Input & intermediate slits table on page 6 for available options
7 Input accessories
HS-EXSLIT-INAD - Entrance slit mount for input slit (one required per system with a slit input configuration) 
HS-SLT-INPUT-**** – Entrance slits, (require one HS-EXSLIT-INAD to be ordered per system), See Input & intermediate slits table on page 6 for available options 
HS-FOI-FC - FC fibre adapter, 
HS-FOI-SMA - SMA fibre adapter 
HS-ASM-0101 - 30 mm cage adapter input 
Ferrule multi-track fibre adapters*1
8 Additional input accessories
Integrated Raman probes*1

Detector Specification sheets andor.com/spectroscopy
Resolution calculator andor.com/calculators
### Input & intermediate slits

<table>
<thead>
<tr>
<th>Slit size (W x H)</th>
<th>Input slit part number</th>
<th>Intermediate slit part number</th>
</tr>
</thead>
<tbody>
<tr>
<td>25 µm x 8 mm</td>
<td>HS-SLT-INPUT-0025</td>
<td>HS-SLT-INTER-0025</td>
</tr>
<tr>
<td>50 µm x 8 mm</td>
<td>HS-SLT-INPUT-0050</td>
<td>HS-SLT-INTER-0050</td>
</tr>
<tr>
<td>100 µm x 8 mm</td>
<td>HS-SLT-INPUT-0100</td>
<td>HS-SLT-INTER-0100</td>
</tr>
<tr>
<td>250 µm x 8 mm</td>
<td>HS-SLT-INPUT-0250</td>
<td>HS-SLT-INTER-0250</td>
</tr>
<tr>
<td>500 µm x 8 mm</td>
<td>HS-SLT-INPUT-0500</td>
<td>HS-SLT-INTER-0500</td>
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<tr>
<td>1000 µm x 8 mm</td>
<td>HS-SLT-INPUT-1000</td>
<td>HS-SLT-INTER-1000</td>
</tr>
<tr>
<td>2000 µm x 8 mm</td>
<td>HS-SLT-INPUT-2000</td>
<td>HS-SLT-INTER-2000</td>
</tr>
<tr>
<td>4000 µm x 8 mm</td>
<td>HS-SLT-INPUT-4000</td>
<td>HS-SLT-INTER-4000</td>
</tr>
</tbody>
</table>

### Notch filters

<table>
<thead>
<tr>
<th>Laser wavelength (nm)</th>
<th>Diameter</th>
<th>Optical Density at laser wavelength</th>
<th>Spectral bandwidth (cm⁻¹)</th>
<th>Andor part number</th>
</tr>
</thead>
<tbody>
<tr>
<td>514.5</td>
<td>Ø 50 mm (2&quot;)</td>
<td>&gt; 6</td>
<td>&lt; 350</td>
<td>HS-HSPF-514.5</td>
</tr>
<tr>
<td>532</td>
<td></td>
<td></td>
<td></td>
<td>HS-HSPF-532.0</td>
</tr>
<tr>
<td>632.8</td>
<td></td>
<td></td>
<td></td>
<td>HS-HSPF-632.8</td>
</tr>
<tr>
<td>785</td>
<td></td>
<td></td>
<td></td>
<td>HS-HSPF-785.0</td>
</tr>
</tbody>
</table>

### ‘Broadband’ volume phase holographic gratings*

<table>
<thead>
<tr>
<th>Central wavelength (nm)</th>
<th>Nominal dispersion (nm/mm)</th>
<th>Nominal Bandpass (nm)</th>
<th>Resolution at centre (nm)</th>
<th>Andor part number</th>
<th>Recommended Holospec model</th>
</tr>
</thead>
<tbody>
<tr>
<td>590</td>
<td>15.78</td>
<td>372 to 808 nm</td>
<td>0.95</td>
<td>HS-HVG-590</td>
<td>VIS</td>
</tr>
<tr>
<td>600</td>
<td>11.15</td>
<td>446 to 754 nm</td>
<td>0.67</td>
<td>HS-HFG-600</td>
<td>VIS</td>
</tr>
<tr>
<td>650</td>
<td>11.92</td>
<td>485 to 815 nm</td>
<td>0.72</td>
<td>HS-HFG-650</td>
<td>VIS</td>
</tr>
<tr>
<td>730.8</td>
<td>13.46</td>
<td>545 to 917 nm</td>
<td>0.81</td>
<td>HS-HFG-730.8</td>
<td>VIS</td>
</tr>
<tr>
<td>750</td>
<td>13.85</td>
<td>559 to 942 nm</td>
<td>0.83</td>
<td>HS-HFG-750</td>
<td>NIR</td>
</tr>
<tr>
<td>800</td>
<td>21.54</td>
<td>502 to 1068 nm</td>
<td>1.29</td>
<td>HS-HVG-800</td>
<td>NIR</td>
</tr>
<tr>
<td>850</td>
<td>15.77</td>
<td>632 to 1068 nm</td>
<td>0.95</td>
<td>HS-HFG-850</td>
<td>NIR</td>
</tr>
</tbody>
</table>

* values shown for a 50 µm x 4 mm (W x H) slit
<table>
<thead>
<tr>
<th>Laser wavelength (nm)</th>
<th>Specific coverage</th>
<th>Average reciprocal dispersion (cm⁻¹/mm)</th>
<th>Nominal dispersion (nm/mm)</th>
<th>Nominal Bandpass (cm⁻¹) [shift min, shift max]</th>
<th>Average resolution (cm⁻¹)</th>
<th>Resolution at centre (nm)</th>
<th>Andor part number</th>
<th>Recommended HoloSpec model</th>
</tr>
</thead>
<tbody>
<tr>
<td>514.5</td>
<td>Stokes Anti-Stokes</td>
<td>101.0</td>
<td>2.76</td>
<td>-1160 to 1634 cm⁻¹</td>
<td>6.06</td>
<td>0.17</td>
<td>HS-HSG-514.5-SA</td>
<td>VIS</td>
</tr>
<tr>
<td>514.5</td>
<td>Low-frequency</td>
<td>96.9</td>
<td>2.87</td>
<td>-312 to 2367 cm⁻¹</td>
<td>5.81</td>
<td>0.17</td>
<td>HS-HSG-514.5-LF</td>
<td>VIS</td>
</tr>
<tr>
<td>514.5</td>
<td>High-frequency</td>
<td>84.6</td>
<td>3.29</td>
<td>2201 to 4539 cm⁻¹</td>
<td>5.07</td>
<td>0.20</td>
<td>HS-HSG-514.5-HF</td>
<td>VIS</td>
</tr>
<tr>
<td>532</td>
<td>Stokes Anti-Stokes</td>
<td>97.5</td>
<td>2.86</td>
<td>-1082 to 1614 cm⁻¹</td>
<td>5.85</td>
<td>0.17</td>
<td>HS-HSG-532-SA</td>
<td>VIS</td>
</tr>
<tr>
<td>532</td>
<td>Stokes Anti-Stokes (high dispersion)</td>
<td>40.7</td>
<td>1.14</td>
<td>-673 to 453 cm⁻¹</td>
<td>2.44</td>
<td>0.07</td>
<td>HS-HDG-532</td>
<td>VIS</td>
</tr>
<tr>
<td>532</td>
<td>Low-frequency</td>
<td>91.9</td>
<td>2.97</td>
<td>-111 to 2430 cm⁻¹</td>
<td>5.51</td>
<td>0.18</td>
<td>HS-HSG-532-LF</td>
<td>VIS</td>
</tr>
<tr>
<td>532</td>
<td>High-frequency</td>
<td>81.5</td>
<td>3.42</td>
<td>2178 to 4432 cm⁻¹</td>
<td>4.89</td>
<td>0.21</td>
<td>HS-HSG-532-HF</td>
<td>VIS</td>
</tr>
<tr>
<td>632.8</td>
<td>Stokes Anti-Stokes</td>
<td>83.6</td>
<td>3.33</td>
<td>-1240 to 1072 cm⁻¹</td>
<td>5.02</td>
<td>0.20</td>
<td>HS-HSG-632.8-SA</td>
<td>VIS</td>
</tr>
<tr>
<td>632.8</td>
<td>Low-frequency</td>
<td>77.9</td>
<td>3.57</td>
<td>-84 to 2071 cm⁻¹</td>
<td>4.68</td>
<td>0.21</td>
<td>HS-HSG-632.8-LF</td>
<td>VIS</td>
</tr>
<tr>
<td>632.8</td>
<td>High-frequency</td>
<td>68.3</td>
<td>4.08</td>
<td>1882 to 3770 cm⁻¹</td>
<td>4.10</td>
<td>0.25</td>
<td>HS-HSG-632.8-HF</td>
<td>NIR</td>
</tr>
<tr>
<td>647</td>
<td>Stokes Anti-Stokes</td>
<td>81.1</td>
<td>3.43</td>
<td>-1070 to 1171 cm⁻¹</td>
<td>4.86</td>
<td>0.21</td>
<td>HS-HSG-647-SA</td>
<td>VIS</td>
</tr>
<tr>
<td>647</td>
<td>Low-frequency</td>
<td>76.4</td>
<td>3.65</td>
<td>-115 to 1997 cm⁻¹</td>
<td>4.58</td>
<td>0.22</td>
<td>HS-HSG-647-LF</td>
<td>VIS</td>
</tr>
<tr>
<td>647</td>
<td>High-frequency</td>
<td>67.0</td>
<td>4.16</td>
<td>1805 to 3656 cm⁻¹</td>
<td>4.02</td>
<td>0.25</td>
<td>HS-HSG-647-HF</td>
<td>VIS</td>
</tr>
<tr>
<td>752</td>
<td>Stokes Anti-Stokes</td>
<td>69.7</td>
<td>3.99</td>
<td>-915 to 1012 cm⁻¹</td>
<td>4.18</td>
<td>0.24</td>
<td>HS-HSG-752-SA</td>
<td>NIR</td>
</tr>
<tr>
<td>752</td>
<td>Low-frequency</td>
<td>65.3</td>
<td>4.29</td>
<td>24.7 to 1830 cm⁻¹</td>
<td>3.92</td>
<td>0.26</td>
<td>HS-HSG-752-LF</td>
<td>NIR</td>
</tr>
<tr>
<td>752</td>
<td>High-frequency</td>
<td>62.3</td>
<td>5.58</td>
<td>1835 to 3558 cm⁻¹</td>
<td>3.74</td>
<td>0.34</td>
<td>HS-HSG-752-HF</td>
<td>NIR</td>
</tr>
<tr>
<td>785</td>
<td>Stokes Anti-Stokes</td>
<td>67.1</td>
<td>4.16</td>
<td>-919 to 936 cm⁻¹</td>
<td>4.03</td>
<td>0.25</td>
<td>HS-HSG-785-SA</td>
<td>NIR</td>
</tr>
<tr>
<td>785</td>
<td>Stokes Anti-Stokes (high dispersion)</td>
<td>27.7</td>
<td>1.69</td>
<td>-460 to 307 cm⁻¹</td>
<td>1.66</td>
<td>0.10</td>
<td>HS-HDG-785</td>
<td>NIR</td>
</tr>
<tr>
<td>785</td>
<td>Low-frequency</td>
<td>75.4</td>
<td>5.36</td>
<td>-207 to 1877 cm⁻¹</td>
<td>4.52</td>
<td>0.32</td>
<td>HS-HSG-785-LF</td>
<td>NIR</td>
</tr>
<tr>
<td>785</td>
<td>High-frequency</td>
<td>60.5</td>
<td>5.87</td>
<td>1718 to 3390 cm⁻¹</td>
<td>3.63</td>
<td>0.35</td>
<td>HS-HSG-785-HF</td>
<td>NIR</td>
</tr>
<tr>
<td>830</td>
<td>Stokes Anti-Stokes</td>
<td>74.7</td>
<td>5.11</td>
<td>-1117 to 947 cm⁻¹</td>
<td>4.48</td>
<td>0.31</td>
<td>HS-HSG-830-SA</td>
<td>NIR</td>
</tr>
<tr>
<td>830</td>
<td>Low-frequency</td>
<td>66.5</td>
<td>5.34</td>
<td>-67.9 to 1771 cm⁻¹</td>
<td>3.99</td>
<td>0.32</td>
<td>HS-HSG-830-LF</td>
<td>NIR</td>
</tr>
<tr>
<td>830</td>
<td>High-frequency</td>
<td>56.9</td>
<td>6.24</td>
<td>1685 to 3257 cm⁻¹</td>
<td>3.41</td>
<td>0.37</td>
<td>HS-HSG-830-HF</td>
<td>NIR</td>
</tr>
</tbody>
</table>

* values shown for a 50 µm x 4 mm (W x H) slit
Order Today

Need more information? At Andor we are committed to finding the correct solution for you. With a dedicated team of technical advisors, we are able to offer you one-to-one guidance and technical support on all Andor products. For a full listing of our regional sales offices, please see: andor.com/contact

Our regional headquarters are:

Europe
Belfast, Northern Ireland
Phone +44 (28) 9023 7126
Fax +44 (28) 9031 0792

Japan
Tokyo
Phone +81 (3) 6732 8968
Fax +81 (3) 6732 8939

North America
Concord, MA, USA
Phone +1 (860) 290 9211
Fax +1 (860) 290 9566

China
Beijing
Phone +86 (10) 8271 9066
Fax +86 (10) 8271 9055

Items shipped with your Spectrograph

1x Spectrograph base unit (with integrated Notch compartment for ‘i’ models), including set of 4 clamping feet
1x Grating fitted as selected at time of ordering
1x Input accessory (slit or fibre-optics connector) fitted as selected at time of ordering
1x Detector flange fitted as selected at time of ordering
1x User guide and Quick Start Guide (on CD)
1x Individual performance sheet

Footnotes: Specifications are subject to change without notice

1. Please contact your Andor representative to discuss available options
2. For alternative slit height options, please contact your local Andor representative
3. Special designs are available on request - please contact your local Andor representative
4. The HoloSpec transmission decreases rapidly below 400 nm, so the full wavelength range displayed may not be achievable
5. Silicon-based detectors are sensitive to around 1,050 nm, so the full wavelength range displayed will not be achievable
6. Typical values quoted for a 27.6 mm wide sensor, e.g. Newton DU940
7. Typical values quoted for a 50 µm x 4 mm (W x H) slit and a 13.5 µm pixel sensor, e.g. Newton DU940
8. For F/1.8i models, typical resolution should be multiplied by 1.2 due to the optical magnification of the system.

Operating & Storage Conditions

• Operating Temperature: 10°C to 40°C ambient
• Relative Humidity: < 80% (non-condensing)
• Ingress Protection: IP20
• Storage Temperature: -20°C to 70°C