

## SP303

### High Performance TE-Cooled Backthinned Spectrometer

- Scientific-grade High Performance
- Extremely Low Dark Noise and Stray Light
- Wide dynamic range and high signal to noise ratio
- High Ultra-Violet Quantum Efficiency
- Flexible optical input direct to slit or via fiber
- Designed from the ground up for a wide range of applications
- High speed data acquisition
- Standard design allows up to 200 - 1100 nm range
- Auto shutter for dark condition



### | Full Specifications

#### Detector :

Hamamatsu S7031-1006S Backthinned CCD

- ▶ Number of Pixels : 1024
- ▶ Sensing Pixel Size : 24  $\mu\text{m}$  X 24  $\mu\text{m}$
- ▶ Pixel well depth : 300 ke-(Vertical), 600 ke-(Horizontal)
- ▶ Quantum efficiency : > 90% @650 nm
- ▶ Sensitivity : ~0.065 counts/e-
- ▶ Cooling : One-stage TE-Cooled(-10 $^{\circ}\text{C}$ )

Wavelength Range : 200 – 1050 nm

Dark Noise RMS : < 2 RMS @35 msec

Signal to Noise Ratio : 1000:1

Fiber Coupler : SMA905 or FC standard

Order Sorting Filter : Longpass filter or linear variable filter installed per wavelength coverage

Optical Resolution : 0.3 to 7 nm depending on the slit and grating choices

Stray Light Level : < 0.05% AVG

Computer Interface : USB 1.1/2.0 compatible

Min. Exposure Time : 7 msec

Trigger Mode : Free Run / Software Trigger / Hardware Trigger

Operation System : Windows 7/10/11 (32/64 bit)

SDK Support : Visual C++ / Visual Basic / LabVIEW

Slit Options : 10, 25, 50, 100, 200 and 400  $\mu\text{m}$

Dimensions/Weight : 173 mm X 120 mm X 79.8 mm / 2.0 kg