

SP642-NIR

The Choice for Low Signal Level Applications

- Low cost and high performance backthinned CCD spectrometer
- Low dark current noise and stray light for spectrometer
- High signal to noise ratio (SNR)
- High ultra-violet quantum efficiency
- High speed data acquisition
- Optical dark option (auto shutter)



| Full Specifications

Detector :

Hamamatsu S16010-1106(Non TE-Cooled Backthinned FFT CCD)

- ▶ Number of Pixels : 2048 X 64
- ▶ Sensing Pixel Size : 14 μm X 14 μm
- ▶ Full well depth: 300 ke- (Horizontal)
- ▶ Quantum efficiency : > 90% @700 nm

Wavelength Range : 200 – 1200 nm

Dark Noise RMS : < 7 RMS @35 msec

Signal to Noise Ratio : > 450:1

Fiber Coupler : SMA905 or FC standard

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

Optical Resolution : 0.25 – 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 / External 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 μm

Temperature Induced Shift : ± 1 pixels per ± 15 $^{\circ}\text{C}$

Dimensions/Weight : 152 mm X 100 mm X 63.6 mm / 1.2 kg