

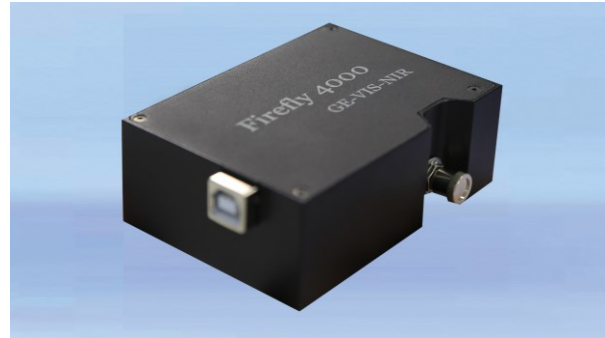
## Compact Spectrometer – Firefly4000

### Features:

- Compact size
- Easy to use
- Customized wavelength range and resolution

### Applications:

- Laser spectral analysis
- Fluorescence spectral analysis
- Raman spectral analysis
- Film thickness measurement
- Reflectivity/transmittance measurement
- Biological cell analysis
- LED analysis



Model	Spectral range
Firefly GE 350-1000	350-1000nm
Firefly GE 230-530	230-530nm
Firefly GE 200-850	200-850nm

Wavelength range (nm)	Slit width (μm)			
	10	25	50	100
	Optical resolution (nm)			
200 – 850	1.01	1.33	2.07	3.74
230 – 530	0.47	0.62	0.95	1.73
350 – 1000	1.01	1.33	2.07	3.74

Detector	
Detector	Toshiba TCD1304DG linear CCD array
Wavelength range	200-1100nm (max. 650nm range)
Pixels	3648 pixels
Pixel size	8um*200um
Spectrometer	
Dimensions (mm)	89*63.9*36.2
Weight (g)	170
Optical resolution	<1.0nm
Signal-to-noise ratio	300:1 (at full signal)
Dynamic range	2*10 <sup>9</sup> (system)
Integration time	4ms-10s
Electronics	
Power consumption	450mA@5VDC
Data transfer speed	Full scans into memory every 4 milliseconds with USB 2.0; every 18 milliseconds with USB 1.1
Strobe functions	Yes
Connector	30-pin

