

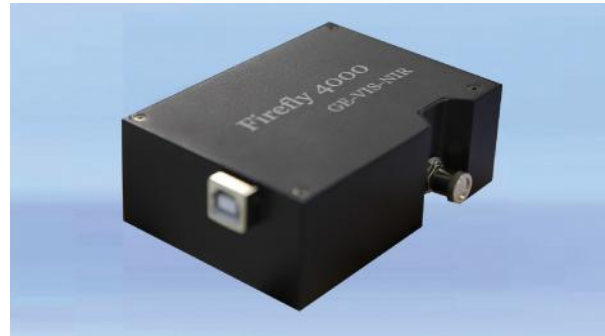
Compact Spectrometer – Firefly4000

Features:

- Small appearance, easy to carry
- 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 General series	GE 350-1000nm
	GE 230-530nm
	GE 200-850nm

Wavelength range (nm)	Slit width (μm)				
	5	10	25	50	100
	Optical resolution (nm)				
200 – 850	0.49	0.91	1.09	1.83	3.45
230 – 530	0.41	0.76	0.90	1.52	2.88
350 – 1000	0.12	0.22	0.26	0.44	0.83

Detector	
Detector	Toshiba TCD1304DG linear CCD array
Wavelength range	200-1100nm
Pixels	3648 pixels
Pixel size	8um*200um
Spectrometer	
Dimensions (mm)	89*63.9*36.2
Weight (g)	170
Optical resolution	<0.6nm
Signal-to-noise ratio	300:1 (at full signal)
Dynamic range	2*10 ⁹ (system);1300:1 for single acquisitio
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
Inputs/outputs	5 inputs and 5 outputs (opto-isolator inputs/outputs)
Analog channels	One 12 analog input one 12 analog output
Strobe functions	Yes
Connector	30-pin connector