

# SPECTRAL EVOLUTION

## LF-Series InGaAs Photodiode Array NIR Spectrometers

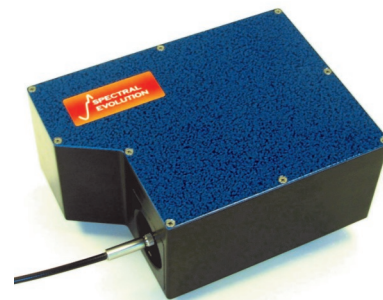
SPECTRAL EVOLUTION LF-series InGaAs NIR spectrometers provide optimized signal-to-noise ratio using an all photodiode array optical system directly mated to fiber optic for maximum throughput. Most units utilize a stable TE-cooled multiplexed InGaAs Array. All LF-series Single InGaAs array spectrometers include USB and wireless Bluetooth communication for easy setup and use. All SPECTRAL EVOLUTION products include our exclusive DARWin SP Data Acquisition & Analysis Software for rapid data analysis and easy setup.

### All Units Feature:

- ▶ All photodiode array construction—no moving optical parts
- ▶ Built-in autoshutter & autoexposure for one-touch measurements
- ▶ USB and wireless Bluetooth interface
- ▶ Stable, TE cooled InGaAs arrays
- ▶ DARWin SP Data Acquisition software included
- ▶ Wide choice of entrance optics including fiber, lens, integrating sphere or right angle diffuser

### Typical Applications:

- ▶ Spectroscopy
- ▶ Water/Moisture Analysis
- ▶ Process Monitoring
- ▶ Petrochemicals
- ▶ Environmental
- ▶ Refining
- ▶ Food
- ▶ Polymers



*LF-series Single InGaAs array spectrometers come in a standard bench package with SMA-905 input. All units can be special ordered with 512-element arrays and optional slit dimensions for custom-tuned spectral range/resolution configurations—please inquire!*

MODEL #	LF-2500	LF-2300	LF-2100	LF-1250
Spectral Range (nm)	1000-2500	1850-2500	1100-2100	900-1700
Sampling Bandwidth	5.9 nm	2.5 nm	3.9 nm	1.6 nm
Choice of slit (μm)	25, 50, 100	25, 50, 100	25, 50, 100	25, 50, 100
Spectral Resolution (nm- slit dependent)	10, 14, 20	5, 6.5, 8	8, 10, 12	3, 4, 5
Spectrometer Type	fiber optic	fiber optic	fiber optic	fiber optic
Detector Type	256 element extended InGaAs array	256 element extended InGaAs array	256 element extended InGaAs array	512 element InGaAs array
A / D Converter	16 bit	16 bit	16 bit	16 bit
λ Reproducibility (nm)	0.5	0.5	0.5	0.5
λ Accuracy	±0.5 bandwidth	±0.5 bandwidth	±0.5 bandwidth	±0.5 bandwidth
Integration Time (ms)	0.5-10,000	0.5-10,000	0.8-10,000	0.8-10,000
Power (typical)	6V, 8W	6V, 8W	6V, 5W	6V, 5W
Size	8" x 6" x 3"	8" x 6" x 3"	8" x 6" x 3"	8" x 6" x 3"
Weight	< 3 lbs	< 3 lbs	< 3 lbs	< 3 lbs
Interface	USB, Bluetooth	USB, Bluetooth	USB, Bluetooth	USB, Bluetooth



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