

## BTF113 Miniature Array Spectrofluorometer



The BTF113 miniature array Spectrofluorometer is a versatile spectrometer for fluorescence application from 200-850 nm. Interchangeable excitation narrow linewidth filters provide the flexibility of 2D fluorescence measurement at a very low cost. An optimally designed collecting lens collects the maximum fluorescence signal from samples. The user-friendly software allows customers to specify their own parameters for phosphorescence detection. And, compact mechanical design uses less valuable “Real Estate” whether in the lab or field.

### Highlights

- Compact design and no moving parts
- 16 Bits A/D Resolution
- Long lifetime pulsed Xenon lamp
- TE cooled and temperature regulated CCD array detection for field use environmental conditions
- Fast warm-up time for fast measuring
- Modular excitation source design for optional wavelengths and replacements
- Optimally designed optics enables high efficiency and wide linear range detection
- Multifunctional and flexible
- Best performance to cost ratio

### Applications

- Fluorophores in liquids and powders
- Petrochemical
- From bulk sample and from surface
- Biology, biomedical, chemical, environmental, food, and cosmetic

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### Typical Specifications

Emission Wavelength Range	<b>200 - 850 nm or custom congiguration</b>
Light Source	<b>Pulsed Xenon lamp 5 W</b>
	<b>10<sup>9</sup> pulses lifetime</b>
Excitation Filter	<b>Interchangeable from 240 - 780 nm</b>
Dichroic Filter	<b>Interchangeable from 280 - 780 nm</b>
Emission Filter	<b>Optional from 280 - 780 nm</b>
Detector Viewing Angle	<b>180 °</b>
Detector	<b>2048-element linear CCD array, TE cooled</b>
Optical Resolution	<b>8 - 10 nm</b>
Stray Light	<b>&lt; 0.5% @ 600 nm</b>
Integrating Time	<b>5 ms minimum</b>
A/D Resolution	<b>16 bit</b>
Wavelength Accuracy	<b>1 pixel (~0.30 nm)</b>
Photometric Accuracy	<b>&lt; 0.1%</b>
Signal to Noise Ratio	<b>300:1</b>
Power Consumption	<b>10 W</b>
Dimensions	<b>238.4(D) x 192(W) x 128(H) mm</b>
Weight	<b>4.1 kg</b>
Computer Interface	<b>USB 1.0</b>