



Duetta™

Fluorescence and Absorbance Spectrometer

ELEMENTAL ANALYSIS
FLUORESCENCE
GRATINGS & OEM SPECTROMETERS
OPTICAL COMPONENTS
CUSTOM SOLUTIONS
PARTICLE CHARACTERIZATION
RAMAN / AFM-RAMAN / TERS
SPECTROSCOPIC ELLIPSOmetry
SPR IMAGING



Fastest Spectrofluorometer
in its class with UltraFast
CCD

Key Features and Benefits

- ✓ Simultaneous Fluorescence and Absorbance Spectrometer
- ✓ UV-Vis-NIR Fluorescence Detection Wavelength Range from 250 to 1,100 nm
- ✓ Full 3-D Fluorescence EEM Acquisition in Less Than One Second
- ✓ Best in Class Fluorescence Sensitivity Specification of 6,000:1 RMS for Water Raman
- ✓ Automatic Correction for Primary and Secondary Inner Filter Effects (IFE)
- ✓ High Fidelity Molecular Fingerprinting with Unique A-TEEM™ (Absorbance-Transmittance Excitation Emission Matrix) Technology
- ✓ Millisecond CCD Detection of Entire Fluorescence Spectrum

Overview

Duetta can be used as a fluorometer, as a UV-Vis-NIR spectrometer to measure absorbance, or as an instrument that measures true molecular fingerprints, which require the simultaneous acquisition of fluorescence and absorbance, correcting for IFE in real time.

Fluorescence in the Blink of an Eye!

Duetta's ultra-fast, state-of-the-art CCD technology allows it to outperform, by orders of magnitude, any competitor using PMTs. It's the fastest bench-top fluorometer in the world, and the only fluorometer that can acquire a full spectrum in less than 100 milliseconds! This state-of-the-art CCD technology also extends NIR wavelength detection to 1,100 nm, well beyond the limit of a standard PMT fluorometer.

Highest Fluorescence Sensitivity in its Class
Having the highest level of fluorescence sensitivity means that Duetta's optimized design lets you measure lower concentrations of a sample, and provides better quality data.

EzSpec™ Touch-Screen Software
Duetta debuts HORIBA's new generation software interface with touch-screen utility, and a selection of Apps for routine analysis.



Specifications

	Duetta	Duetta-Bio
Acquisition Modes	Simultaneous Absorbance and Fluorescence Spectrometer	
Fluorescence Sensitivity	SNR >6,000:1 RMS, 350 nm excitation, 5 nm slits	
Spectral Acquisition Rate	510,000 nm/min	
EEM Acquisition Rate	As fast as 1 second (sample and wavelength dependent)	
A-TEEM Acquisition Rate	As fast as 30 seconds (sample and wavelength dependent)	
Fluorescence Detector	CCD / Spectrograph	
Fluorescence Detector Range	250-1,100 nm	
Fluorescence Bandwidth	1, 2, 3, 5, 10, 20 nm (excitation and emission)	
Absorbance Detector	Silicon Photodiode	
Absorbance Detector Range	250-1,000 nm	
Absorbance Bandwidth	2, 3, 5, 10 nm	
Light Source	75 W Xenon arc lamp. Dedicated cartridge for snap-in replacement	
Excitation/Absorbance Wavelength Range	250-1,000 nm	
Absorbance Accuracy	+/- 0.02 A	
Wavelength Accuracy	+/- 1 nm	
Absorbance Range	0-2 A	
Computer Requirements	Windows® 10/8/7 Laptop or PC with 1 USB	
Software	EzSpec	
Dimensions (W x D x H)	17 x 20.4 x 14.4 inches; 43.18 x 51.816 x 36.576 cm	
Weight	45 pounds; 20.4 kg	
Polarizers (Time of Purchase)	Not Available	Yes (280 to 750 nm)

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HORIBA Scientific has a policy of continuous product development, and reserves the right to amend part numbers, descriptions and specifications without prior notice.



HORIBA
Scientific

info.sci@horiba.com

USA: +1 732 494 8660
UK: +44 (0)20 8204 8142
China: +86 (0)21 6289 6060

France: +33 (0)1 69 74 72 00
Italy: +39 2 5760 3050
Brazil: + 55 11 2923 5400

horiba.com/duetta

Germany: +49 (0) 6251 8475-0
Japan: +81 (75) 313-81231
Other: +1 732 494 8660