



FX

DUV

Fluorescence Detector

Stand-Off Ultra-Trace Organic Contamination Detection

The **FX** DUV Fluorescence Detector is a small size, light weight, lower power system focused on detection and classification of ultra-trace concentration of organic contaminants on surfaces such as high-performance optical components, semiconductors and other manufactured surfaces susceptible to ultra-trace levels of contamination.

A major driving motivation for **FX** is the ability to spatially map or image chemical contaminants of critical component surfaces as part of QA processes.

A second driving motivation for the **FX** is real-time detection of contaminants in liquids or water.

A third driving motivation is the ability to detect and/or map biological material on surfaces or in water. This is not possible with other methods, including 1064nm, 785nm or 532nm Raman methods.

The **FX** includes:

- Deep UV laser and controller
- 6-band deep UV detector with 8-decade dynamic range

Features

Excitation Wavelength: 248.6nm.

Spectrograph: Six band selectable contiguous or non-contiguous spectral range detectors, depending on application.

Detector: PMT array detector with multi-channel gated boxcar integrator/average with >8 decades dynamic range.

Detection: Can detect particles down to about 10µm. Concentrations of chemical down to the low ng/cm² range.

Objective Lens: Large depth of focus from 100mm ±5mm

Overall Size: 7.0" W x 7.0" H x 19.5"D

Weight: <15 lbs

Power Consumption:

Standby: 8 W Max power: 60 W

Input: 85 VAC to 270 VAC or 24 VDC

Safety: Class 3B, DHHS/CDRH, CE, RoHS

Command & Control: External laptop computer

