VioNeer™ Deep UV / VUV Spectrometer - DRAFT

A 155 – 410 nm spectrometer designed for deep-UV and VUV measurements

The VioNeer™ Series is a Deep UV / VUV spectrometer covering a wavelength range of 155 – 410 nm. It features a back-thinned 2048-pixel CCD sensor with 0.3 – 1.8 nm optical resolution and selectable 10 – 200 µm slit widths. The spectrometer supports USB Type B and Ethernet data transfer and provides free-space and SMA905 optical interfaces. For measurements below 180 nm, free-space coupling is required due to silica fiber absorption.



APPLICATIONS

- Semiconductor process monitoring
- Photoresist characterization
- Gas/water analysis
- Biomolecular absorption spectroscopy
- Deep-UV applications

KEY PERFORMANCE

Wavelength Range: 155 – 410 nm
Optical Resolution: 0.3 – 1.8 nm (10–200 µm slit width selectable)
Signal-to-Noise Ratio: 450
Sensor: Back-thinned 2048-pixel CCD
Dynamic Range: 5000
Integration Time: 1.5 ms – 65 s
Stray Light: <0.2%
Interface: USB Type B, Ethernet (RJ45), 16-pin GPIO

Shipping Q1 2027 • Pre-order now and save 10% off list price

DRAFT - Preliminary specifications subject to change.

VioNeer™ Specifications - DRAFT

	VN5190/VN5194
Wavelength Range	155 – 410 nm
Sensor Type	Back-thinned CCD
Pixels	2048
SNR	450
Dynamic Range	5000
Dark Noise (avg)	Approx. 13
Optical Resolution	0.3 – 1.8 nm (10-200 µm slit width selectable)
Numerical Aperture (NA)	0.11
Fiber Input Interface	SMA905 (optional free-space input port)
Data Interface	USB Type B, Ethernet (RJ45), 16-pin GPIO
Dimensions / Weight	180 (L) × 144 (W) × 59.9 (H) mm (Excluding main board and connector); <2 kg

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