

FAST, COMPREHENSIVE AND NON-DESTRUCTIVE

VEpioneer[®] CORE is the world's smallest fully integrated one-button bench-top Hyperspectral Vision system for macroscopic inspection. It captures surface properties, detects thin films and identifies deviations from production specifications.

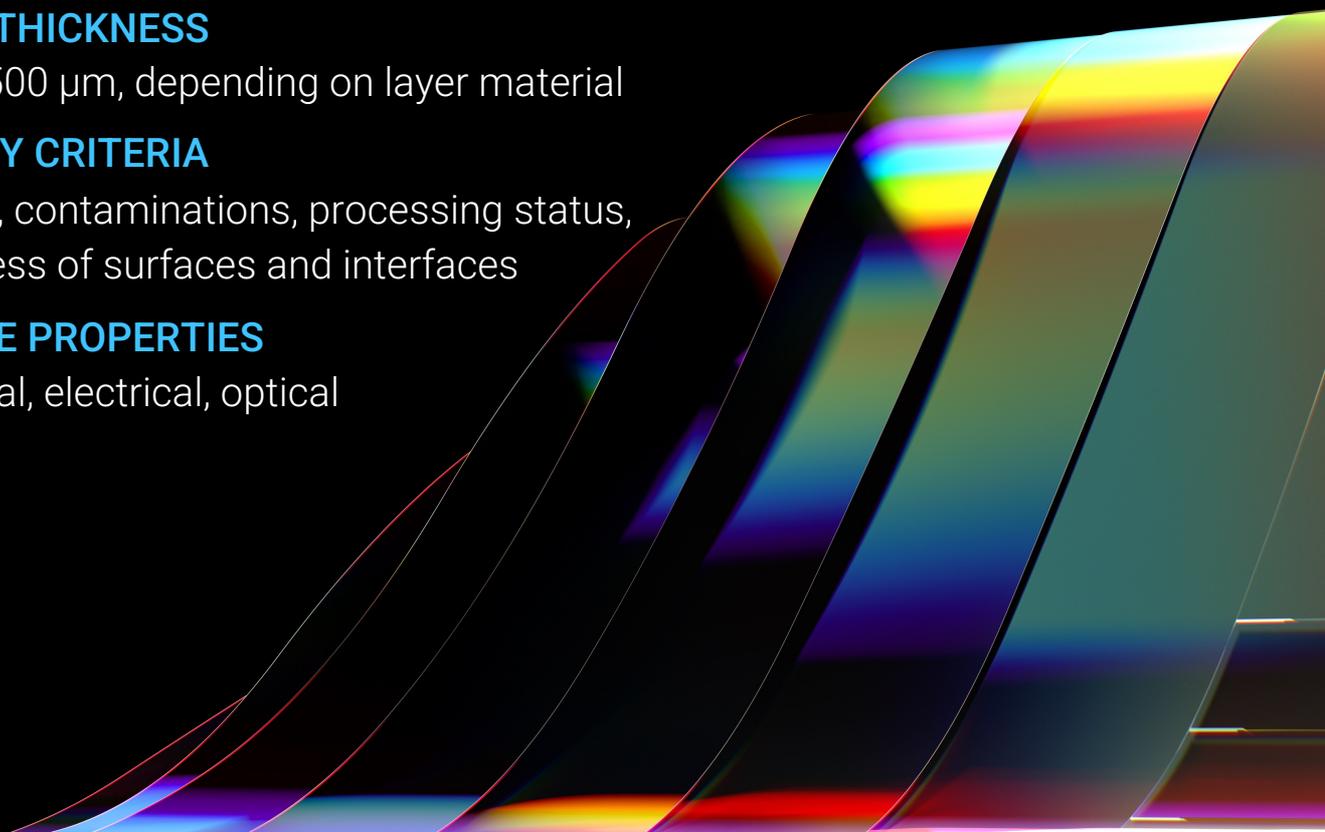
- **FAST**
Measurement time: < 20 seconds
- **COMPREHENSIVE**
One run: 100 % sample information
- **NON-DESTRUCTIVE**
Unique combination of optical spectroscopy and imaging



INSIGHTS FROM INSPECTION

VEpioneer[®] CORE boosts your product and sample knowledge by orders of magnitude with spatially resolved recognition of:

- **LAYER THICKNESS**
1 nm - 500 μ m, depending on layer material
- **QUALITY CRITERIA**
Defects, contaminations, processing status, roughness of surfaces and interfaces
- **SAMPLE PROPERTIES**
Chemical, electrical, optical



INSPECTED MATERIALS

VEpioneer® CORE is designed for simple and fast area measurement of surfaces and thin layers on various substrates:

- **SUBSTRATES**

Powders, Metals, glass, polymers, semiconductors (Si, SiC), ceramics,

...

- **LAYERS**

Oxides, nitrides, carbides, polymers, ...

SPECIFICATIONS

Imaging technique	Pushbroom scanning mode
Measurement mode	Reflectance fluorescence optional
Measurement time (typical)	< 20 s
Wavelength range	VNIR 400–1000 nm
Spectral bands	VNIR 448
Spectral resolution	VNIR 1.34 nm
Field of view (FOV)	100 mm further customisation available
Spatial resolution	VEpioneer® CORE: VNIR 100 µm high-resolution scan-modes available
Lighting	VELuminise®: broadband LED excitation with spectral range 400–900 nm
Dimensions	1052 x 568 x 592 mm (L x W x H)
Sample size	100 x 100 mm maximum sample height max. 10 mm further customisation available
Sample stage	Linear, 50 mm travel range, sample stage adapted to customer requirements
Reference	Built-in PTFE
Operating conditions	+5 ... +45 °C (non-condensing)
System weight	90 kg
System certification	CE, RoHS, UKCA
Power requirements	Rated voltage 230 VAC (115 V optional) Rated frequency 50–60 Hz Rated power 170 W
Connectivity	RJ45 (ethernet)
Compute unit	Laptop or PC with VESolve® PRO software