

HYPERSPECTRAL VISION TECHNOLOGY

Comprehending the Invisible

Fast. Non-destructive. Comprehensive. 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.

FEATURES AT A GLANCE

-  **Fast inspection**
Measurement time < 10 seconds
-  **Non-destructive measurement**
Unique combination of optical spectroscopy and imaging
-  **Comprehensive analysis**
One run: 100 % sample information

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 µm, 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 and many more



Layers

Oxides, nitrides, carbides, polymers and many more

SPECIFICATIONS

Measurement mode	Reflectance
Measurement time	< 10 s (typical)
Wavelength range	VNIR 400–1000 nm
Spectral resolution	VNIR 1.34 nm
Spatial resolution	VNIR 100 µm high-resolution scan-modes available
Field of view (FOV)	100 mm further customisation available
Lighting	VELuminise® – LED broadband excitation
Sample size	up to 100 x 100 mm, max. height 10 mm further customisation available
System dimensions	230 x 200 x 500 mm (L x W x H)
System weight	12 kg
Certification	CE, RoHS, UKCA
Operating conditions	+5 ... +40 °C (non-condensing)
Connectivity	RJ45 (ethernet)
Control	VEsolve® PRO Software
Power requirements	230 V _{AC} (115 V optional), 50–60 Hz, 80 W