




HYPERSPECTRAL VISION TECHNOLOGY

Comprehending the Invisible

Fast. Non-destructive. Comprehensive. VEpioneer® MACRO is the world's first 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® MACRO 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® MACRO is designed for simple and fast area measurement of surfaces and thin layers on various substrates:



Substrates

Metals, glass, polymers and foils, 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 SWIR 900–1700 nm
Spectral resolution	VNIR 1.34 nm SWIR 3.5 nm
Spatial resolution	VNIR 300 µm SWIR 470 µm high-resolution scan-modes available
Field of view (FOV)	300 mm 200 mm optional further customisation available
Lighting	VELuminise® – adjustable halogen broadband source, LED broadband or UV-LED excitation
Sample size	up to 360 x 360 mm, max. height 10 mm further customisation available
System dimensions	1002 x 530 x 331 (L x W xH)
System weight	58 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, 170 W

WANT TO FIND OUT MORE?
CONTACT US FOR INFORMATION!

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Learn more

