PVA TePla

Polytec

VEpioneer® SEMI

HYPERSPECTRAL VISION TECHNOLOGY

Comprehending the Invisible

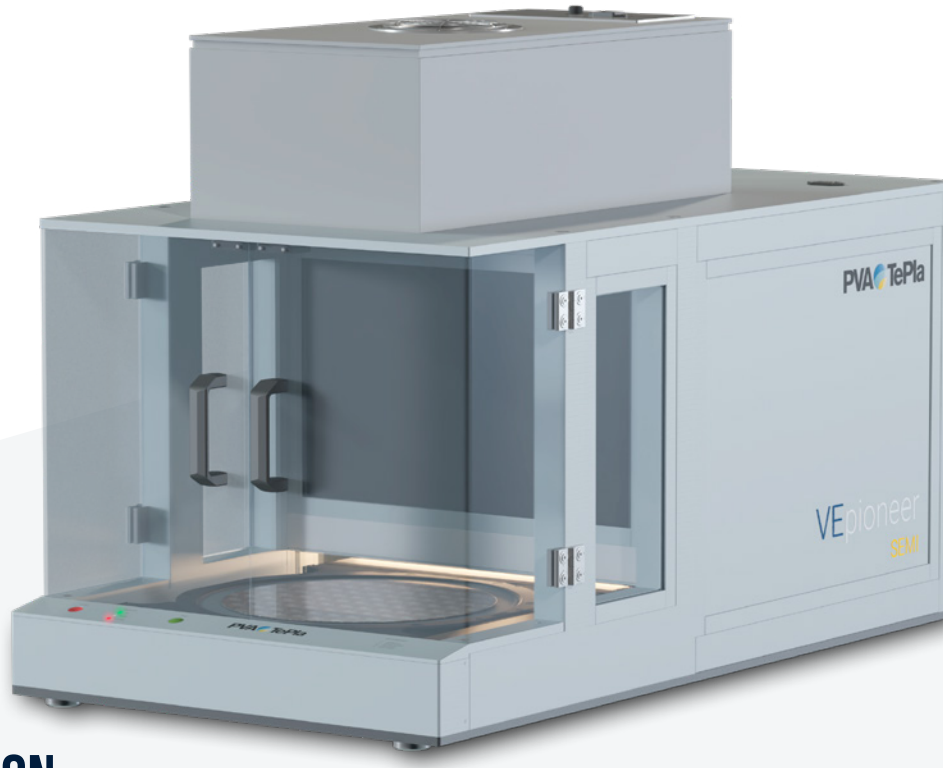
Fast. Non-destructive. Comprehensive. VEpioneer® SEMI is the world's first fully integrated, one-button, bench-top Hyperspectral Vision system designed for macroscopic wafer inspection in cleanroom environments (ISO 3). It efficiently captures surface properties, detects thin films, and identifies deviations 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® SEMI 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

Sample properties
Chemical, electrical, optical

Quality criteria
Defects, contaminations, processing status, roughness of surfaces and interfaces

PVA TePla

INSPECTED MATERIALS

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

Substrates
Semiconductors (Si, SiC and others), metals, polymers, ceramics, glass, and many more

Layers
Oxides, nitrides, carbides, polymers and many more

SPECIFICATIONS

Cleanroom capability	ISO class 3, including laminar flow FFU
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 | further customisation available
Lighting	VEluminise® – adjustable halogen broadband source, LED broadband or UV-LED excitation
Sample size	up to 360 x 360 mm | further customisation available
System dimensions	1050 x 568 x 721 mm (L x W x H)
System weight	83 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

Polytec

Polytec GmbH
Polytec-Platz 1 - 7
Tel: +49 (72 43) 604 1730
E-Mail: ot@polytec.de
D - 76337 Waldbronn
www.polytec.com