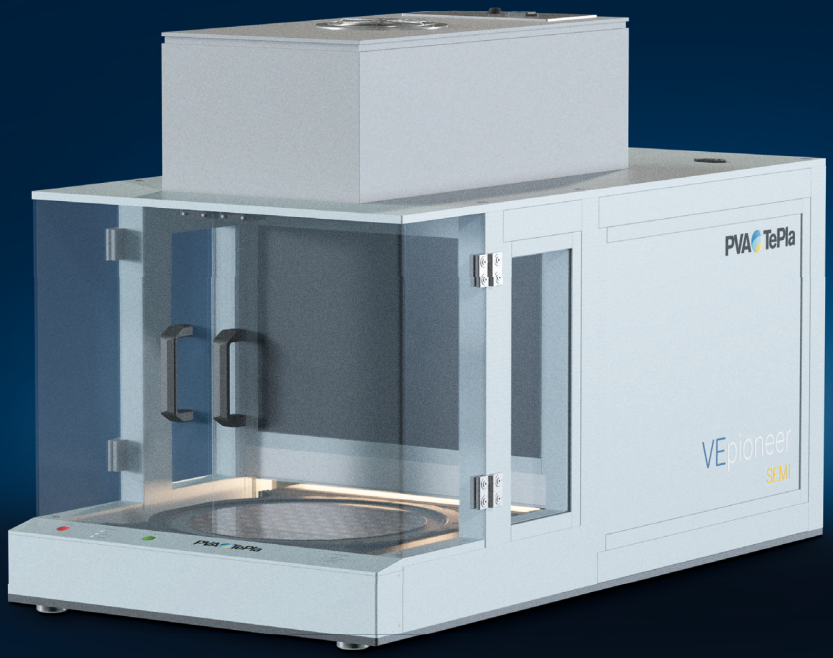
VEpioneer® SEMI

PRODUCT OVERVIEW

COMPREHENDING THE INVISIBLE



Fast. Non-destructive. Comprehensive. VEpioneer® SEMI brings the proven VEpioneer® MACRO platform into the fab. Equipped with an integrated laminar flow FFU for ISO class 3 cleanroom operation, it delivers contamination-free macroscopic wafer inspection – full surface, one operation.

PVA TePla

HYPERSPECTRAL VISION REDEFINED

WE DON´T GUESS.
WE SEE.

Even the smallest deviation from specification means scrapped parts or costly rework. Yet most inspection methods are slow, complex, or even destructive. The **VEpioneer® SEMI** changes that bringing 100 % hyperspectral inspection straight into the fab, qualified for ISO class 3 cleanrooms.

One button operation. Full surface insight
Fully automated inspection from start to result – no complex setup, no prior expertise required.

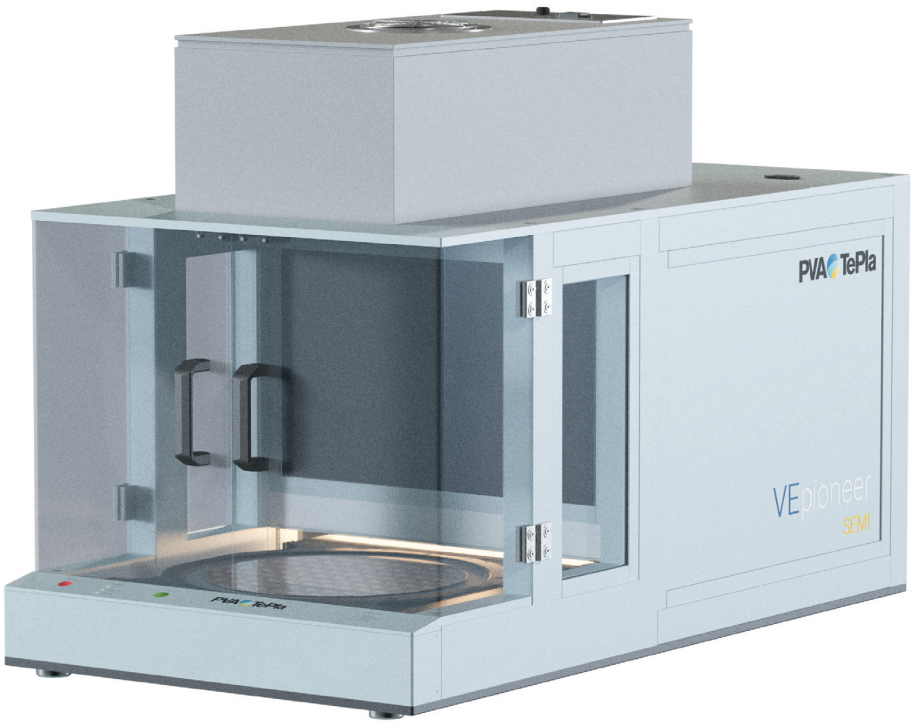
Non-destructive inspection
Optical spectroscopy leaves samples completely intact – ideal for production-critical parts.

Fast measurement
Performs a single scan in less then 10 seconds.

Layer thickness from 1 nm to 500 µm
Precisely inspects ultra-thin to thick layers across a wide range of materials and substrates.

Compatible with virtually any material
Specialized for 100 mm, 150 mm, 200 mm and 300 mm wafer.

Comprehensive analysis
100 % sample information in just one run.



TECHNICAL PARAMETERS

Every detail matters. The VEpioneer® SEMI is engineered for precision, speed, and versatility.

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
Field of View (FOV)	300 mm | 200 mm [2]
Spatial Resolution	VNIR 300 µm / SWIR 470 µm [1]
Max. Sample Size	up to 360 × 360 mm, max. height 10 mm [2]
Lighting	VEluminise® – adjustable halogen broadband source, LED broadband or UV-LED excitation
Software	VEsolve® PRO
Connectivity	RJ45 (Ethernet)
ENVIRONMENT	
Power Requirements	230 VAC (115 V optional), 50 Hz, 170 W
System Dimensions	1050 x 568 x 721 mm (L × W × H)
System Weight	83 kg
Certifications	CE, RoHS, UKCA
Operating Conditions	+ 5 °C to + 40 °C (non-condensing)
SUBSTRATES & LAYERS	
Substrates	Semiconductors (Si, SiC and others), metals, glass, polymers, ceramics, and many more
Layers	Oxides, nitrides, carbides, polymers, and many more
Layer Thickness Range	1 nm – 500 µm (material dependent)
Surface Information	■ Cleanliness ■ Contaminations ■ Defects ■ Surface states ■ Custom target parameters

[1] High-resolution scan-modes available. | [2] Further customisation available.

VISIT US.
ONLINE.



WANT TO FIND OUT MORE?
CONTACT US FOR INFORMATION!

PVA TePla AG | Vision
Im Westpark 10–12 | 35435 Wettenberg

+49 (0)641 686 90-0
explore-vision@pvatepla.com
www.pvatepla.com

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