



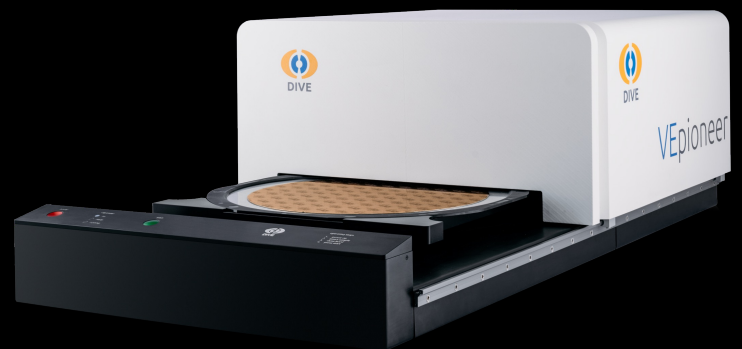
# VEPIONEER®

## Hyperspectral Vision System

### FAST, COMPREHENSIVE AND NON-DESTRUCTIVE

VEpioneer® is the world's first fully integrated one-button bench-top Hyperspectral Vision system for macro 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® 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

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### INSPECTED MATERIALS

VEpioneer® 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, ...

- **LAYERS**

Oxides, nitrides, carbides, polymers, ...

### SPECIFICATIONS

Imaging technique	Pushbroom scanning mode
Measurement mode	Reflectance   fluorescence optional
Measurement time (typical)	20 s (@framerate 50 Hz)
Wavelength range	VNIR: 400-1000 nm   SWIR 1: 900 – 1700 nm   SWIR 2: 1000 – 2500 nm on request
Spectral bands	VNIR: 448   SWIR: 224
Spectral resolution	VNIR: 1.34 nm   SWIR: 3.5 nm
Field of view (FOV)	300 mm   200 mm optional
Spatial resolution	VNIR: 300 µm   SWIR: 470 µm
	field of view configurable 200 – 300 mm   further scan modes with high-resolution available
Lighting	<b>VELuminise</b> unit: tuneable halogen broadband source for homogeneous light field broadband LED with spectral range 400 – 900 nm or UV-LED excitation optional
Dimensions	1052 x 568 x 592 mm (L x W x H)
Sample size	360 x 360 mm maximum   sample height max. 10 mm, further sample sizes optional
Sample stage	Linear, 450 mm travel range, sample holder adapted to customer specifications
Reference	Built-in PTFE   protected aluminium optional
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 DIVE <b>VEsolve® Pro</b> software

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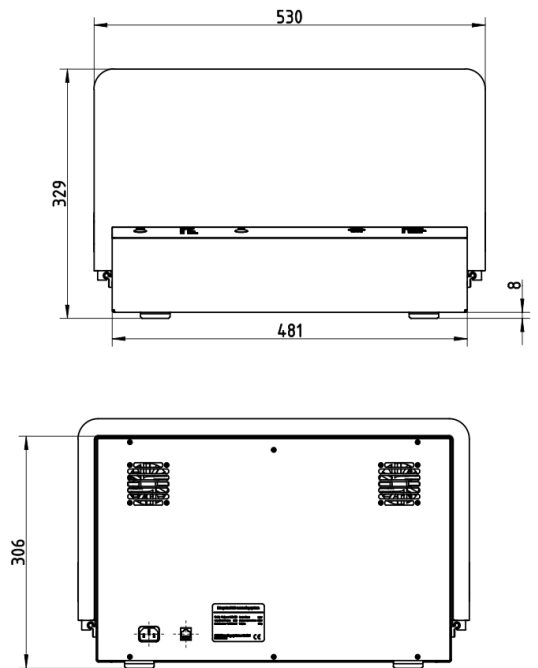
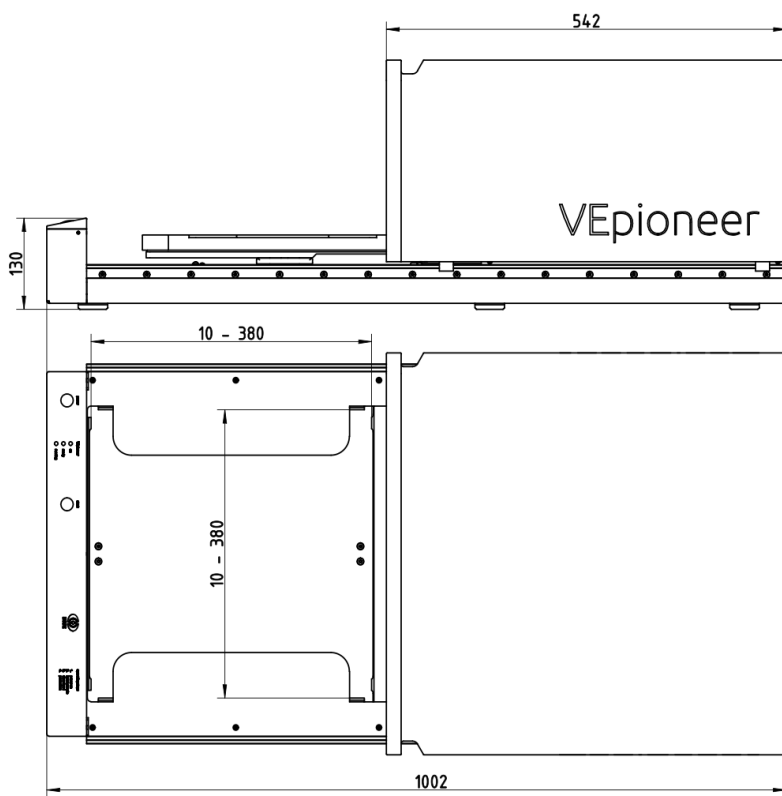
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### DIMENSIONS



Additional configurations regarding sample size and sample stage, optical configurations as well as other specifications can be customised.

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