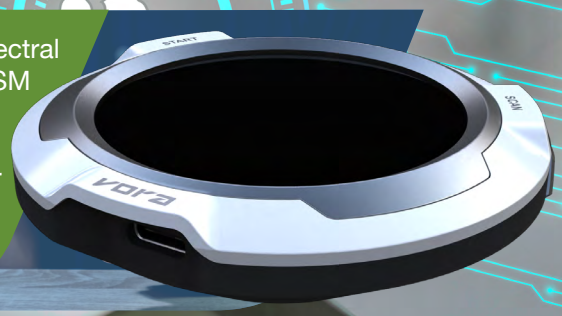
VORA

Voice – Optical Reagentless Analyser

VORA is a portable, intelligent platform that combines multi-spectral sensing with voice-assistant capabilities. It is integrated with LSM technology to analyse spectral readings, ensuring more reliable and accurate detection. The system provides real-time, non-invasive analysis and connects with secure cloud workflows for interactive voice feedback. Compact, AI-driven, and versatile, it is designed for diverse applications in research, healthcare, industry, and field operations.



Technology Overview

VORA integrates visible-to-near-infrared (Vis-NIR) spectral sensing with advanced edge computing to deliver accurate, real-time analysis across solids and biomarker samples. Through secure cloud connectivity, the device supports two-way communication by transmitting voice recordings and receiving synthesised audio responses for immediate playback. This creates an interactive, multimodal platform that unites spectral sensing, intelligent data analysis, and real-time voice feedback. With its modular design and machine learning integration, VORA can be flexibly customised for a wide range of research, industrial, and field applications.

Technology Benefits

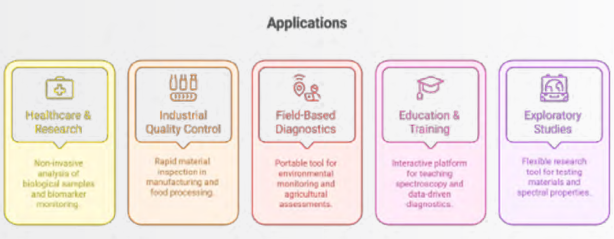
- **Interactive Voice Assistant:** Enables voice interaction, letting users record questions and receive spoken responses. This makes results easier to understand and reduces dependence on visual displays.
- **Real-Time Insights:** Delivers quick spectral analysis with instant feedback, helping users make informed decisions during time-sensitive situations like research, quality control, or field assessments.
- **Portable & Self-Sufficient:** Compact and battery-powered, it works reliably even in places with limited infrastructure, whether in labs, clinics, factories, or outdoor settings without needing constant power or connectivity.
- **Robust & Reliable:** Designed for stable accuracy across different conditions, ensuring dependable performance in fieldwork, industry, and exploratory studies beyond controlled labs.
- **Simplified User Experience:** Simple controls and an intuitive interface reduce training requirements and minimise user errors, making it accessible to both experts and non-specialists.

Key Features

- **Non-Invasive Spectral Sensing:** Captures detailed spectral signatures without destroying or altering the sample, supporting repeatable and safe testing.
- **AI-Enhanced Accuracy**: Employs machine learning models to improve predictive accuracy, reduce noise, and adapt to new sample types through retraining.
- **Secure Cloud Integration:** Supports data transfer, workflow automation, and remote monitoring while maintaining high security standards for sensitive data.
- **Interactive Touchscreen Display:** Provides a clear, user-friendly interface for data visualisation, system control, and simplified workflows.
- **Voice Assistant Integration:** Enables audio-based interaction for hands-on efficiency, allowing users to input queries and receive spoken responses.

Applications

- **Healthcare & Research**: Useful for non-invasive analysis of biological samples, monitoring biomarkers, or exploring new diagnostic models in clinical studies.
- **Industrial Quality Control:** Enables rapid material inspection and authentication in manufacturing, food processing, pharmaceuticals, or chemical production lines.
- **Field-Based Diagnostics:** Portable tool for environmental monitoring, agricultural assessments, and resource exploration where laboratory facilities are unavailable.
- **Education & Training:** Interactive platform for teaching spectroscopy, AI, and data-driven diagnostics in academic or vocational programmes.
- **Exploratory Studies:** Flexible research tool for testing materials, investigating spectral properties, or developing new machine learning models.



MIMOS Berhad 199501006785 (336183-H)
Technology Park Malaysia, Bukit Jalil,
57000 Kuala Lumpur, Wilayah Persekutuan
Tel: +603 8995 5000 | Fax: +603 8996 2755
www.mimos.my

mimosmalaysia