

# I2R LABS

IDEAS INTO REALITY

"Know Your Health. Own Your Life."

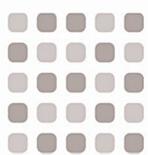


## Liquid Test Probe

Smart Optical Sensing for Rapid Liquid Analysis



The Liquid Test Probe is a compact, high-performance spectroscopic tool designed for rapid, non-destructive analysis of liquid samples. Built with precision optics and dual-light excitation, it enables real-time monitoring of a wide range of liquid properties — from compositional quality to contamination detection.



## Liquid Test Probe

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### Key Features:

#### Dual Excitation Modes:

- UV Light (365 nm, 90° Angle Entry) for fluorescence-based detection
- White Light (400–800 nm, Reflective Mode) for VIS-NIR surface reflection analysis

#### Integrated Optical Design:

- Optimized geometry to isolate UV and VIS responses
- Protective optical window for liquid immersion and contamination resistance

#### Compact, Modular Construction:

- probe design with embedded UV and white light
- Robust body suitable for lab, industrial, and field settings

#### Real-Time Full-Spectrum Output:

- Spectral resolution of ~15 nm
- Reliable detection of subtle optical changes

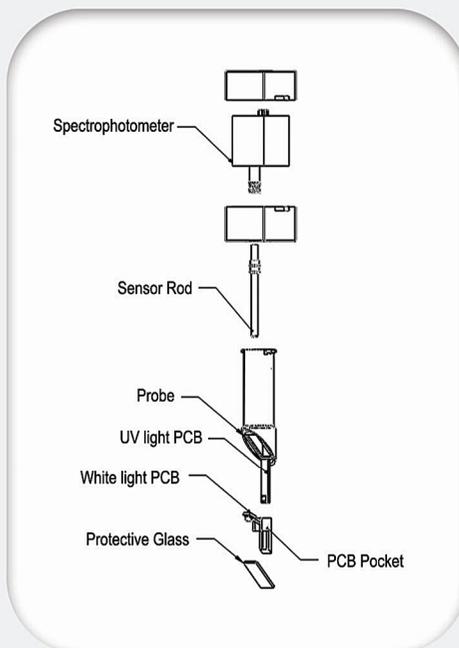
### Advantages

- No sample preparation or reagents
- Fast, plug-and-play operation
- Compatible with handheld or benchtop systems
- Customizable for target liquid applications

### Technical Highlights

#### Parameter Specification

- Spectral Range 800–340 nm (UV + Visible/NIR)
- UV Excitation 365 nm, 90° angled entry for fluorescence
- White Light Illumination 800–400 nm, reflective measurement geometry
- Spectral Resolution ~15 nm
- Probe Material Chemically resistant, immersion-capable
- Optical Interface Protective glass window (quartz/sapphire)
- Light Sources UV LED + White LED on PCB
- Data Output Full spectrum via USB or serial interface



### What's Included

- Optical probe with built-in UV and white light modules
- Spectral acquisition control unit
- Software SDK for integration & real-time analysis
- Optional carrying case and calibration materials

### Ready for Real-World Testing

Accelerate your liquid analysis with a proven, compact optical solution.

### Applications:

#### Milk & Dairy Testing:

Analyze fat, protein, SNF content and detect adulteration instan.

#### Water Quality Monitoring:

Detect UV-absorbing contaminants, organic residues, and turbidity.

#### Pharma & Lab Diagnostics:

Assess compound identity, purity, and reaction states.

#### Beverages & Fermentation Control:

Monitor process development and ensure product consistency.

