

Data Sheet

# VIAMI MicroNIR™ OnSite-W

A rugged, wireless, battery-operated near infrared spectrometer designed for rapid, handheld material analysis

Wireless, compact, rugged, and ergonomic, the MicroNIR OnSite-W is the latest addition to the VIAMI Solutions® innovative, ultra-compact spectrometer product line.

With integrated battery, button, and Bluetooth, the OnSite-W is the ideal solution for mobile material analysis in the factory or in the field. The powerful software suite presents an intuitive user interface that requires minimum training to operate from a tablet or PC.

The MicroNIR OnSite-W is the smallest fully-integrated NIR spectrometer on the market and is enabled by proven VIAMI linear variable filter (LVF) technology. With no moving parts and IP65/IP67 dust/water ingress rating, it is designed for a wide range of material characterization applications in food, agriculture, pharmaceutical, and security markets.



MicroNIR OnSite-W Instrument



MicroNIR OnSite-W in application

## Benefits

- Rapid, real-time, non-destructive near-infrared material analysis
- Wireless, compact, rugged, and ergonomic design for one-hand operation
- Multifunction button for one-click data acquisition
- Internal, rechargeable battery with run time greater than 10 hours
- IP65 and IP67 rated for use in wet and dusty environments
- Bluetooth or USB connectivity to tablet or PC
- Compatible with original MicroNIR OnSite accessories
- Powerful MicroNIR Pro model-building and prediction software
- Intuitive, easy-to-use software interface

## Applications

- Pharmaceutical raw materials
- Polymers and chemicals
- Narcotics and explosives
- Grain and forage
- Tobacco and agricultural products
- Meat and dairy products

## Standard Accessories

The MicroNIR OnSite-W includes the following standard accessories:

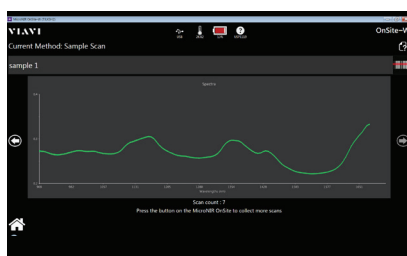
- Two measurement collars with sapphire windows, AR-coated on one side for maximum light throughput
- Protected white reference target with sapphire window
- Rugged carrying case including space for PC and tablet
- USB cable for charging and data connection to tablet or PC



MicroNIR OnSite-W Kit running MicroNIR Pro application (tablet not included)

## Software

The MicroNIR OnSite-W system includes the VIAVI MicroNIR Pro software suite with features for data acquisition, calibration and method development, user management, and real-time prediction. Using MicroNIR



MicroNIR Pro Tablet Application

Pro software, a developer can process data and build complete chemometric models using regression and classification

algorithms including PLS, MBSO, SMV, and PCA analyses. Batch mode predictions on stored data are also supported.

MicroNIR Pro software also includes instrument performance qualification per EP 2.2.40 and USP 1119 test criteria and tools enabling Title 21 CFR Part 11 compliance. An enhanced OPC interface is optionally available for

integration with process control systems.

The OnSite-W system also includes a standalone tablet application with simplified user interface for data acquisition and real-time prediction in the field. **Please see recommended hardware/software listed in specifications.**

## Specifications

Parameter	Specification
Illumination source	Two integrated vacuum tungsten lamps
Lamp life	>40,000 hr
Sample working distance	3 mm from window optimal, 0-15 mm
Dispersing element	VIAVI linear variable filter (LVF)
Detector	128 pixel InGaAs photodiode array
Wavelength range	950 – 1650 nm (10,526 – 6060 cm <sup>-1</sup> )
Pixel-to-pixel interval	6.2 nm for 950 – 1650 nm
Spectral bandwidth (FWHM)	<1.25% of center wavelength, 1% typical (e.g., @1000 nm, resolution is <12.5 nm)
Analog-to-digital convertor	16 bit
Dynamic range (Max)	1000:1
Measurement time (typical)	0.25 – 0.5 sec
Signal-to-noise ratio (typ.)	25,000
Integration time	10 ms typical, minimum 10 µsec
Connectivity	Bluetooth 4.1 (BLE) and USB 2.0
Weight	<250 g (<9 oz)
Size (Length x Diameter)	194 mm (6.64") x 47 mm (1.85")
Battery	Rechargeable Li-ion, not removable
Battery run time/charge	>10 hours with lamps on continuously
Battery cycle life	>75% capacity after 300 charge cycles
Battery charge time	3.5 hours at 1 A
Export data formats	CAMO .unusb, Grams .spc, ASCII .csv
Operating system	Microsoft Windows 10 Pro
Minimum screen resolution tablet/PC application	1920 x 1080/1366 x 768
Software compatibility	MicroNIR Pro 3.0 and above
Qualified PC	Microsoft Surface Pro 6 (tablet or PC)
Qualified Tablet PC	Dell Latitude 7212 Rugged Extreme
Operating temperature	-20 ~ 40°C (noncondensing)
Storage temperature	-20 ~ 50°C (noncondensing)
Dust and water resistance	IP65 and IP67
Shock and vibration	MIL-PRF-28800F Class 2

For more information, please contact your local VIAVI account manager or VIAVI directly at 1-800-254-3684 worldwide or via e-mail at [micronir@viavisolutions.com](mailto:micronir@viavisolutions.com).