

Portable and Handheld Spectral Sensing Scanner

The NeoSpectra-Scanner is a portable and handheld spectral sensing device that can be used in a wide variety of material sensing applications. The scanner enables the development of in-field material analysis applications in various industries.

The scanner incorporates NeoSpectra sensors that operate over a wide spectral range in the NIR (1,350 - 2,500 nm), offering the best qualification and quantification of materials.



Hardware & Software Ready

Hardware and software ready solution for unique application development.

Large Spot Size

Large spot size for measuring non-homogenous materials.

Rugged Ergonomic Design

Unique design that enables ease of use for in-field applications.



Measurements can be made...



Above the Scanner

- o Set the scanner on a flat surface
- o Place samples on top



Point & Shoot

- o Hold scanner in hand
- o Point and shoot at samples



Below the Scanner

- o Place samples on a flat surface
- o Set the scanner on top

Features:

Performance

- o Wide spectral range
- o Large spot size
- o Adjustable scan time
- o Optimum resolution

Usability

- o Ergonomic handheld design
- o Meant to operate in rugged conditions (IP65)
- o Bluetooth wireless connectivity
- o Battery operated

Implementation

- o Hardware & software ready solution
- o Non-destructive analysis
- o Simultaneous analysis of various parameters
- o Various materials can be measured.

Specifications

Parameter	Value
Diameter of collected light beam	6 mm
Wavelength range	1,350 - 2,500 nm
Resolution	16 nm
Battery charge time	3 hours till 80% capacity, 5 hours to 100% with 1A charging current
Number of scans per battery charge	1000 scans (2 seconds scans)
Battery type	2 x 18650 batteries, user-replaceable
Wireless connectivity	Bluetooth V4.2 BLE
Operating temperature	-5 to 40 °C
Ingress protection rating	IP65
Dimensions	178 X 91 X 62 mm
Weight	1 kg

Typical Application Development

- 1 Collect Samples**
Collect material samples.
- 2 Make Measurements**
Characterize samples using a reference method.
- 3 Collect Spectra**
Measure samples using the scanner.
- 4 Develop Analysis Models**
Data analysis to correlate spectra data to reference measurements.
- 5 Validate & Deploy**

What's Possible

Enabling a broad range of applications and use cases across multiple industries.



Smart Farming



Smart Food



Smart Industry

Plug-and-Play Development Package

The NeoSpectra-Scanner development package comes with everything needed to start unique application development. The development package includes:

- NeoSpectra-Scanner
- Reference material
- Data collection software
- Software Development Kit (SDK)



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