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...

91 mm

178 mm

62 mm

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)
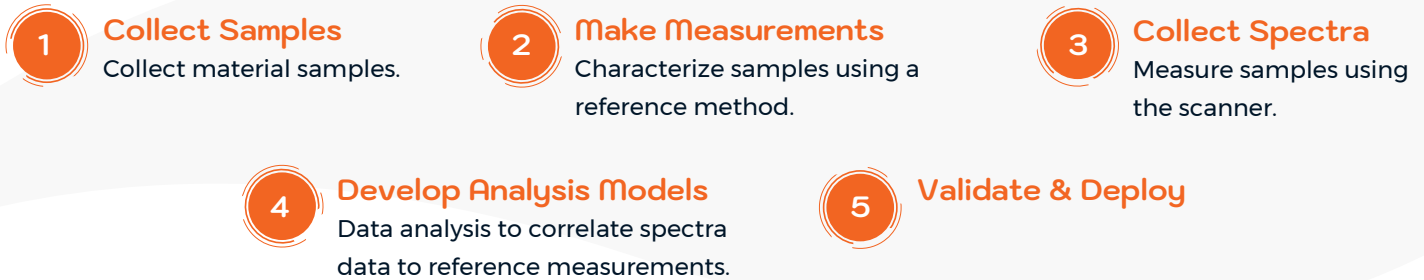o Bluetooth wireless connectivity
o Battery operated

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)