

# Affordable Handheld Spectroscopy



ScanSpectrum is a rugged and reliable handheld visible/near-infrared spectrometer (400-1000 nm), ideally suited to field measurements of plants and for environmental sciences.



**ScanSpectrum**  
qed.ai

**qed**  
QUANTITATIVE ENGINEERING DESIGN



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# Features



## Portable

Make point and shoot handheld measurements over several hours from your chosen USB powerpack\*. A compact suitcase that keeps your accessories organised and fits in your backpack, and rugged battery straps and a snap-in mounting for your Android phone\* secure everything so you can focus on making measurements.

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## Fast

Captures spectra in seconds.

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## Accurate

Match the performance of lab equipment costing hundreds of times more: capture high-accuracy spectra with SNRs  $\geq 200$  and a spectral resolution of  $< 3$  nm.

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## Simple Open Data

Share scans from your Android phone\*, in open machine-readable formats (.CSV), to a destination of your choice (e.g., Google Drive, Dropbox).

\*not included in package



# Use Cases



## Reflectance

Plant Health Assessment: Capture NDVI and similar vegetation indices in seconds. Outperform transmission based chlorophyll meters, and tune indices for your application using full spectral output. Side-step angle-of-view, solar angle, and background issues using direct contact, auto-illuminated measurements of diffuse reflectance.

## Transmittance

Get lab quality spectrometry without the need for a stable electricity supply. Extract pigments to calibrate high-throughput reflectance measurements of chlorophyll, carotenoids, or anthocyanins. Environmental Audit/Health: Rapidly measure water turbidity (FAU) and carry out colorimetric analysis cleanliness for industrial engineering applications



## Specifications

Spectral Range	400-1000 nm
Resolution (FWHM)	3 nm
Measurement Time	8 s
Spectral Image Size	1920 × 1080 px
Working Modes	Reflectance Transmittance using standard curve
Weight (Full Kit)	860 g
Dimensions (Case)	30 × 28 × 12 cm
Operating Temperature	0 to 70 °C
Power Requirements	5V, 2A USB source