



Spectroscopy from Lab to Pocket

Compact, cost-effective and research level performance in your palm – designed by spectroscopy experts, for the everyday user...

The dilemma of traditional spectroscopy systems

Spectroscopy is one of the most powerful and versatile technique for measuring colours and substances, yet it has traditionally been too complex and costly for large scale applications such as IoT or consumer goods. There are three types of spectrometers: Filter, grating and interferometric based devices. While interferometers outperform all other methods in terms of efficiency, spectral range and resolution, they are also fragile and costly.

Growing demand for smart sensing solutions

With key drivers coming from factory automation, automotive driver assistance, food safety regulations, personalised cosmetics, wearables or smart home appliances, the demand for intuitive, mobile and affordable optical sensors across various industries is growing at a tremendous rate.

A revolution in compact spectroscopy

Attonics translates the architecture and scanning optics of high-end interferometers into a single nano-structured chip, thus converting conventional table-top solutions into portable and low-cost spectroscopic devices that fit into your palm or consumer product.

We offer product & OEM sensing solutions (standard or customised) for

- High-resolution colour detection and communication (e.g. CIE, LAB, RGB)
- QC based on colour or substances during manufacturing
- Determination of plant health and food freshness
- Metrics related to personal health in hair care, skin care, and oral care
- Detection of counterfeits in drugs, apparel and F&B
- Measurement of illumination sources and CRI (e.g. LEDs, displays)
- Many more...



Our Value Proposition:



End-User Product

TTO³

■ Ultra-compact: 3 x 3 x 6 cm

Wide Bandwidth: 380 - 1,050 nm

High Resolution: ~ 1 nm (Peak repeatability)

■ Cost-Effective: < 1500 €



OEM Module "AttoCore"

Ultra-compact: ~ 9 x 9 x 1 mm
 Wide Bandwidth: 380 - 1,050 nm
 High Resolution: customisable
 Cost-Effective: 100-1000 €

Our Partners:

We are proud to be working with global players in a wide range of industries such as Apple, Applied Materials, P&G, Nestlé, L'Oréal, Sakata Inx, and many more.



Contact Us:



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Key Features

Ultra-compact, ergonomic and robust	☐ 50 measurements per second	
Wide Band: 380 to 1,020 nm	☐ High SNR and Dynamic Range	
Repeatability customisable to 0.1 nm	☐ Software for Windows, Mac Platf	forms
2 to 20 nm configurable resolution	☐ USB Powered, USB 3.0 interface	

Technical Specs

Waysalameth Danes	200 4 000	
Wavelength Range	380 nm – 1,020 nm	
Peak Repeatability	< 1 nm*	
Size / Dimensions	32 x 32 x 66 mm ³	
Weight	75g	
FWHM	12 nm (customisable to a higher resolution depending on bandwidth)	
SNR	> 100:1	
Dynamic Range	12 bit	
Integration Time	10 us to 1 s	
Numerical Aperture	0.3*	
Measurement Speed	50 frames per sec*	
LED*	White High CRI LED, UV LED	
Supply Voltage	5 V, USB based connection	
Power Consumption	0.4 W (CMOS)	
Power Consumption	0.1 to 1 W (LEDs)*	
Operation Temperature	-30°C to +70°C	
* based on configuration, customisable		

We bring spectrometers from laboratories to the wider community disrupting the world of spectroscopy.

Systems