Anton Paar

FTIR Spectrometer

Lyza Series

Lyza Series: Transforming FTIR Spectroscopy

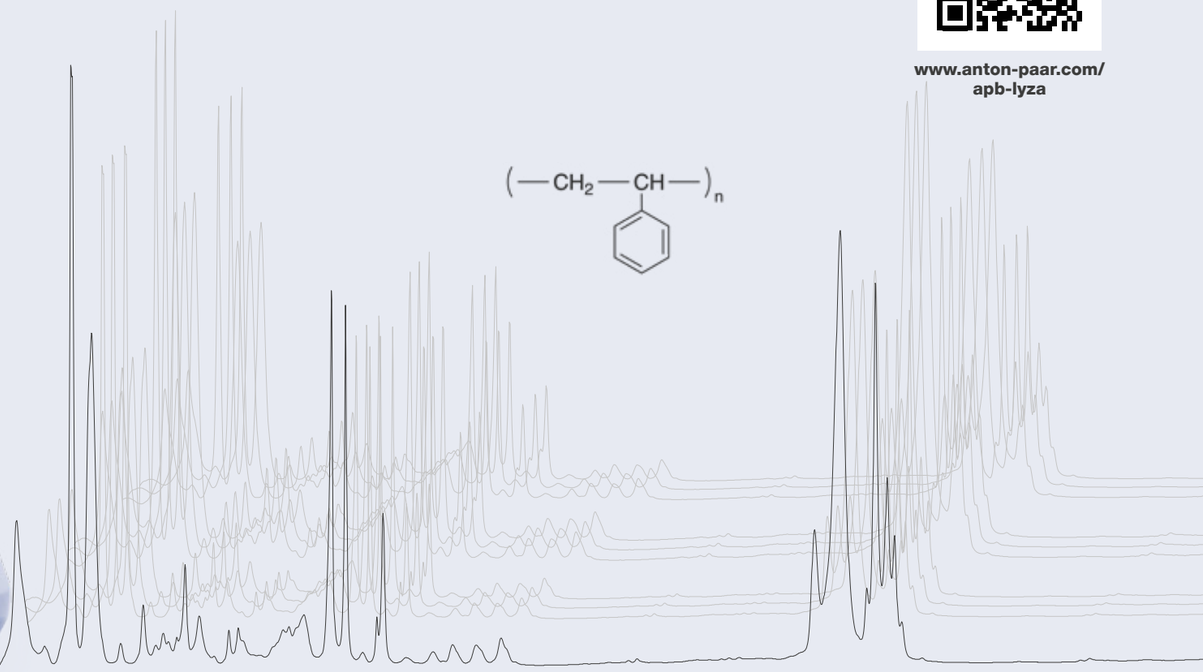
The Lyza Series FTIR spectrometers transform industry standards: They are so straightforward to use that anyone can start measuring right away. Guided workflows, combining measurement, processing, and spectral analysis in an automated method, allow users with minimal experience to perform QC measurements in just three steps, for a quick pass/fail result.

Measure hundreds of sample types, from solid to liquid or gaseous, and switch effortlessly between measurement cells, thanks to the versatile modular cell concept. Premium optical components ensure consistently high performance and longevity for years to come.

- ✓ Fast pass/fail spectral analysis helps optimize quality, maximize efficiency
- ✓ Perform complex measurement routines at the push of a button
- ✓ Check incoming goods, identify unknown substances, ensure the quality of your final product
- ✓ Modular cell concept for hundreds of sample types
- ✓ 15-year warranty on IR source, laser, and interferometer

FIND OUT MORE

www.anton-paar.com/apb-lyza



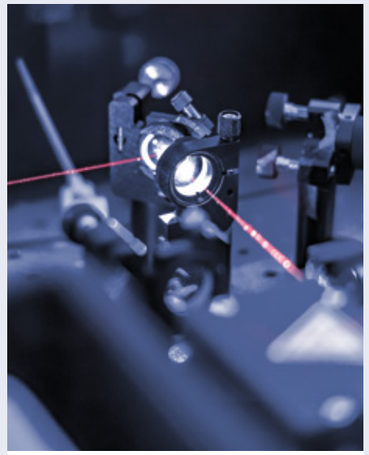
Lyza Series:
Remarkably Powerful

Lyza 7000 is a compact instrument with powerful embedded software that works right out of the box. The instrument is equipped with an adjustable touchscreen and a smart phone-inspired user interface.

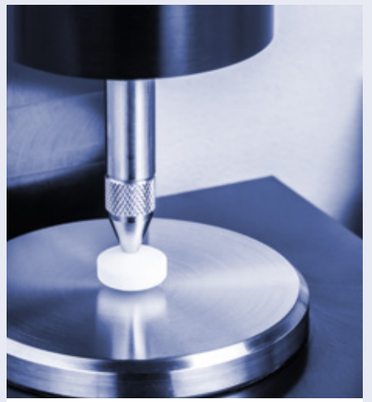
Lyza 3000 is a budget-friendly FTIR spectrometer that integrates premium optical components, ensuring years of stable performance. The Anton Paar Spectroscopy Suite desktop software guides even inexperienced users through all measurement tasks.

System health
Innovative internal system monitoring technology constantly monitors your instrument. All you need to know, you know at a glance. The smart status LED light updates you on measuring progress wherever you are in the lab.

Modular
The instrument's easily exchangeable cell module is compatible with a variety of ATR and transmission cells, enabling you to handle hundreds of sample types. Quickly swap your module and let the instrument detect it automatically.

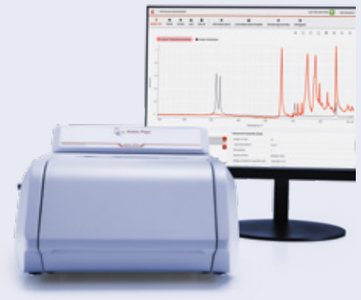


Premium components
When we blended optical analysis expertise with the dream of unsurpassed quality control, a remarkable instrument was born.



Versatile
Identify and verify any sample or unknown substance via your own specialized library, or choose from a variety of industry-standard libraries like S.T.Japan, Aldrich, and IChem.

Full-service
Lyza series instruments come with a three-year warranty that requires no maintenance plan, plus 15-year coverage for the IR source, laser, and interferometer.



Cost-efficient
Choose Lyza 3000, our entry level spectrometer with no compromise on quality. Operated via Spectroscopy Suite, Lyza 3000 is your ideal companion for straightforward spectral analysis.

Press “Start”, and “Methods” Take Care of the Rest

Perform complex measurements at the push of a button. Control the innovative operating system directly on the instrument – no PC needed. Combine multiple analyses in a single method with a customizable report.

Anton Paar has designed high-quality analytical measuring solutions for decades. Our experience combined with our in-depth knowledge of FTIR spectroscopy gives you access to powerful analysis. Just press “Start”, and “Methods” will take care of the rest.

Powerful Automated Analysis **in Just 3 Simple Steps**

1. Choose method

→ Predefine your measurement settings and all spectral analyses once. Save them as “Method.” Use them again and again.

2. Press start

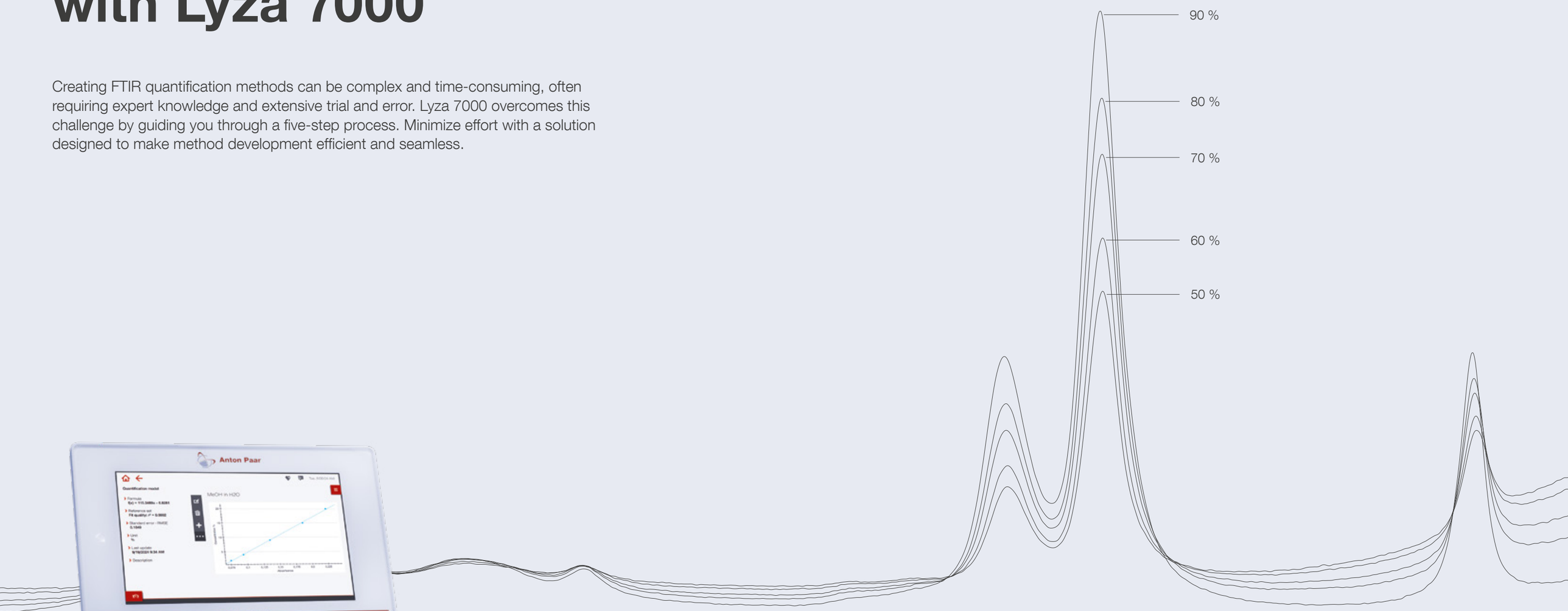
→ Start all your analyses with a single tap.

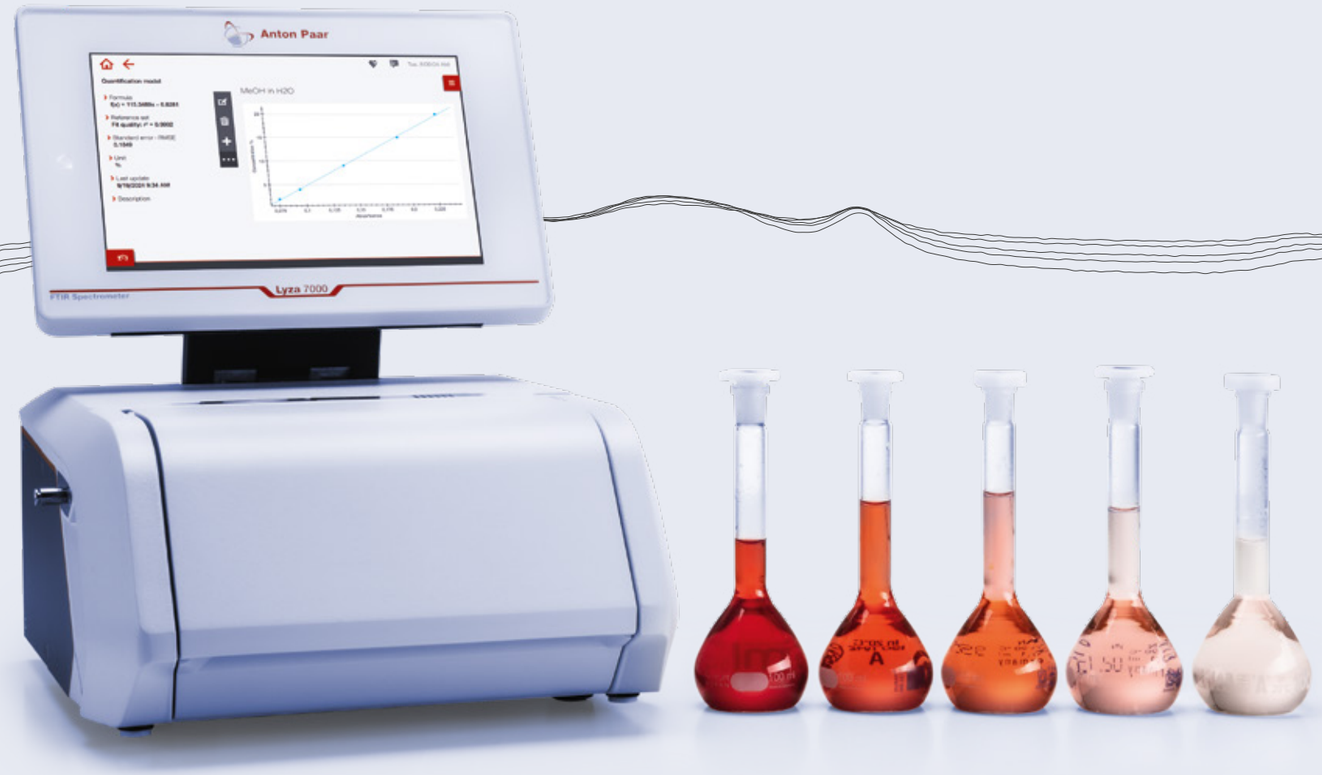
3. Result

→ Enjoy the convenience of automatic spectral analysis. Receive a summary of all results in a single report.

Quantification Made Simple
with Lyza 7000

Creating FTIR quantification methods can be complex and time-consuming, often requiring expert knowledge and extensive trial and error. Lyza 7000 overcomes this challenge by guiding you through a five-step process. Minimize effort with a solution designed to make method development efficient and seamless.





- → Step 1: Choose a name and unit for your quantification
- → Step 2: Select your reference spectra
- → Step 3: Fine-tune your spectra to achieve optimal results
- → Step 4: Define your desired peak
- → Step 5: Save the automatically generated quantification model

The Heart of **Lyza**

The hermetically sealed, desiccated spectrometer core contains all the premium optical components needed to ensure the most stable conditions for precise measurements.

An exchangeable cell module houses a range of measurement cells, including horizontal ATR, transmission cells for liquids, and single-bounce ATR cells.

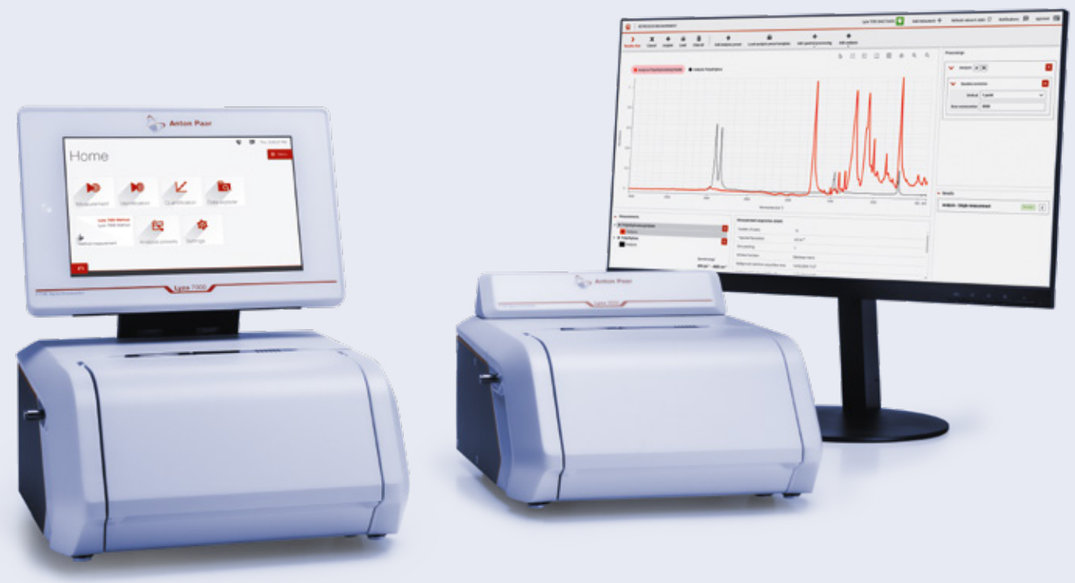
- ✓ Automatic calibration for optimal performance with every cell
- ✓ Permanently aligned cube-corner interferometer to compensate vibrations
- ✓ Ceramic composite IR source to ensure fast warm-up, stability, and durability
- ✓ High-performance molecular sieve drying cartridge that can be exchanged without tools to keep your core components safe and dry at all times

Spectroscopy Suite

Lyza series, in combination with Anton Paar's Spectroscopy Suite software, is the solution tailored to incoming goods inspection and R&D in the regulated environment. You need results, not spectra: The system takes all complicated spectroscopy aspects out of the daily measuring routines. Predefined workflows and settings speed up measurements and avoid errors before they can even occur.

All workflows, like running samples, setting up methods, and generating reference libraries, adhere to stringent compliance regulations.

- ✓ Complies with 21 CFR Part 11 and EU GMP Vol. 4 Annex 11
- ✓ Permission and user group management via active directory
- ✓ Full traceability including audit trail, library and method versioning, and signing procedures
- ✓ Lifetime data integrity with a secure SQL database



Data at Your Fingertips

AP Connect streamlines instrument data workflows in laboratories by providing seamless, efficient data management and integration for instruments. This ensures accuracy, data safety, compliance, and paperless efficiency in a centralized digital hub, which in turn helps improve data quality and reduces overhead costs.

- ✓ Vendor-independent digitization of laboratory instrument data guarantees a secure, centralized repository for all instrument data, thereby eliminating transcription errors.
- ✓ Seamless integration of all connected instruments (regardless of vendor or type) into AP Connect reduces the complexity of instrument integration into your leading information management system.
- ✓ Improved laboratory efficiency with a time-saving flawless start of measurements and generation of sample lists directly from an online PC. This reduces manual intervention, increases productivity, and lowers operational costs.
- ✓ Compliant with key industry regulations like 21 CFR Part 11 and EU Annex 11, providing a secure, traceable, and reliable laboratory data management system.

FIND OUT MORE

www.anton-paar.com/apt-apconnect

	Lyza 3000 ↓	Lyza 7000 ↓
Detector	Pyroelectric DLaTGS detector	
Optics	Hermetically sealed aluminum casing with gold-coated mirrors, KBr windows and beamsplitter	
Signal-to-noise ratio	55,000:1 (1 min, 8 cm^{-1}, 2,100 cm^{-1} to 2,200 cm^{-1})	
Spectral range	350 cm^{-1} to 7,500 cm^{-1}	
Spectral resolution	1.4 cm^{-1} to 16 cm^{-1}	
Wavenumber accuracy	<0.05 cm^{-1} (at 900 cm^{-1} to 3,000 cm^{-1})	
Wavenumber precision	<0.0005 cm^{-1} at 2,000 cm^{-1} (standard deviation of 10 repeated measurements)	
Photometric accuracy	Better than 0.06 % transmittance	
Typical measurement time	<30 seconds	
Laser type	Single mode vertical-cavity surface-emitting laser (VCSEL)	
Laser class	Class 1, enclosed hermetically	
IR source	SiC composite	
Interferometer	Permanently aligned cube-corner interferometer	
Desiccant	Molecular sieve with color indicator, user-replaceable	
Operating temperature range	10 °C to 30 °C (50 °F to 86 °F) (non-condensing)	
Instrument dimensions (L x W x H)	365 mm x 315 mm x 204 mm (14.4 in x 12.4 in x 8.0 in)	365 mm x 315 mm x 382 mm (14.4 in x 12.4 in x 15 in)
Cell compartment width	152 mm	
Weight	11.7 kg (25.8 lbs)	12.8 kg (28.2 lbs)
Power supply	AC 100 V to 240 V, 47 Hz to 63 Hz; DC 24 V, max. 3.75 A	
Typical power consumption	24 W (during operation)	30 W (during operation) 15 W (with activated eco mode)
Communication interfaces	4 x USB 2.0 / CAN / Ethernet	
Wireless connectivity	-	Wi-Fi*
Data export formats	.csv, .pdf, .spc	.csv, .pdf, .spc, .png
Data management	AP Connect	
Display	No touchscreen	10.1", PCAP touchscreen, multi-touch
Controls	AP Spectroscopy Suite required	Touchscreen Optional: keyboard, mouse, barcode reader, AP Spectroscopy Suite
Internal storage	-	32 GB
Spectral libraries	Factory library, user-built, third-party options	
Regulatory compliance	21 CFR Part 11 including installation, operation qualification, and performance qualification (DQ/IQ/OQ/PQ)**	

*Via external Wi-Fi stick (material number 390637)
**Available with AP Spectroscopy Suite Premium (material number 256138)

Reliable. Compliant. **Qualified.**

FIND OUT MORE

www.anton-paar.com/service

Our well-trained and certified technicians are ready to keep your instrument running smoothly.

Maximum uptime
Regardless of how intensively you use your instrument, we help you keep your device in perfect shape and safeguard your investment. For at least 10 years after the discontinuation of a device, we'll provide you with any service and spare part that you might need.

Warranty program
We're confident in the high quality of our instruments. That's why we provide a full 3-year warranty. Just make sure to follow the relevant maintenance schedule. You can also extend your instrument's warranty beyond its expiration date.

Short response times
We know that sometimes it's urgent. That's why we provide a response to your inquiry within 24 hours. We give you straightforward help from great people, not from bots.

A global service network
Our large service network for customers spans 86 locations with more than 600 certified service technicians. Wherever you're located, there's always an Anton Paar service technician nearby.

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