

Ultima Expert LT

High Performance ICP-OES
at Affordable Price

Designed for Challenging Applications

HORIBA develops and manufactures high performance ICP-OES spectrometers for more than 35 years.

The new Ultima Expert LT provides high performance at affordable price for laboratories with challenging samples.

Ultima Expert LT integrates high efficiency Jobin Yvon optical design capable to achieve optimal performance for a large variety of sample types and matrices.

Ultima Expert LT is driven by the powerful Analyst software featuring a large variety of analytical functionalities for tailored control and analysis.

The robustness of the Ultima Expert LT makes it ideal for applications common to mining, chemicals manufacture, salt production, wear metals in oil analysis, petrochemical, dismantling, *in-situ* corrosion studies, REE, batteries and metallurgical production.

Gain in performance with the Ultima Expert LT for your most challenging applications!

Ultima Expert LT

Superior Performance in ICP-OES

Unique Plasma Torch Design for Most Versatile and Accurate Analyses

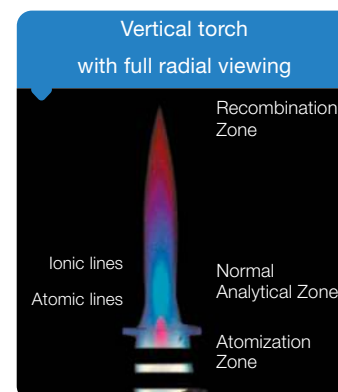
Ultima Expert LT uses a unique plasma torch design with radial viewing mode to allow viewing of the entire normal analytical zone.

The vertical torch, the original sheath gas device and the wide injector enable the Ultima Expert LT to handle difficult matrices, with robust operation and minimal maintenance.

Ultima Expert LT ensures the lowest detection limits even with the most challenging samples, such as high salt content, brines, dissolved solids and complex organics.

Its water-cooled high efficiency 40.68 MHz solid state generator enhances the ability to handle a large range of samples, reduces warm-up time down to 15 min, and improves stability and reliability.

All these features make the Ultima Expert LT the most versatile, accurate and robust ICP-OES spectrometer available.



High Resolution and Full Wavelength Coverage

Ultima Expert LT delivers the highest resolution with **less than 5 picometers** for the UV range and **less than 10 picometers** for the visible range. Such resolution can be achieved due to the unique optical design of the Ultima Expert LT, which integrates a high density holographic grating and one meter focal length optics.

Full wavelength coverage from 160 to 800 nm is offered to satisfy all the requirements for elemental analysis. Optional Far UV kit is available to extend coverage down to 120 nm for halogen elements analysis.

High resolution and excellent sensitivity allow elements with high, low and trace concentrations to be measured accurately, giving you maximum confidence in your results.

Easy to Handle, Easy to Maintain

Spacious compartments for sample and plasma are designed to facilitate sample handling.

Quick release, fully demountable torch with no adjustment required facilitates multi-user operation and provides excellent reproducibility.

Powerful Software with Advanced Features

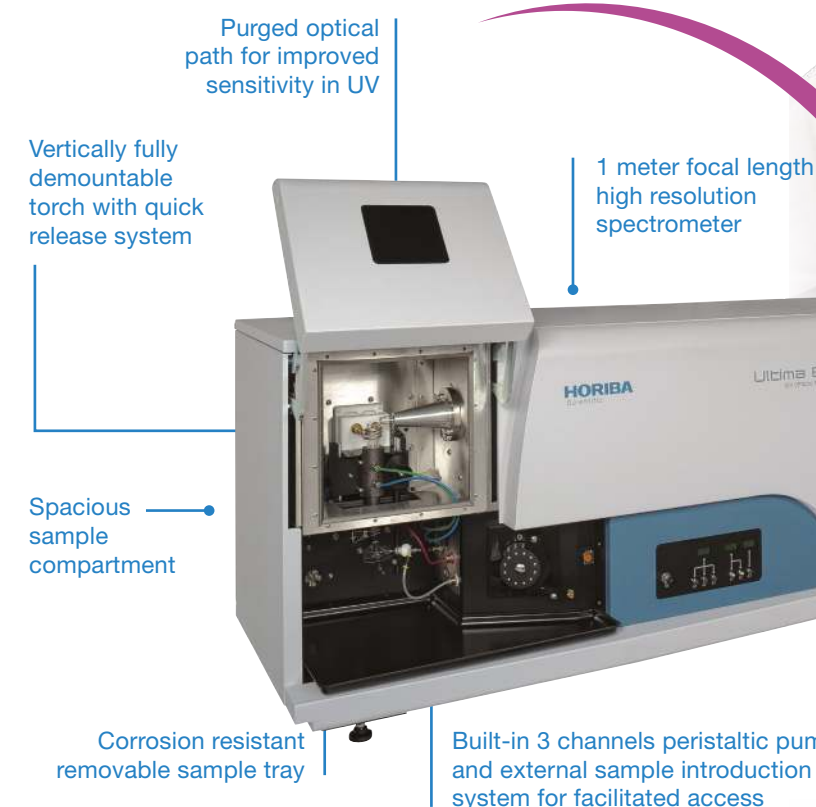
ICP Neo software for HORIBA ICP-OES spectrometers is designed to facilitate method development, samples measurements and results management.

ICP Neo delivers powerful tools for samples measurement with **new HDD mode** integrated for standard measurement, **advanced Quality Control Protocols**, **sample fingerprint** and **retrospective analysis** with respect to the integrity of raw results to match with good laboratory practices requirements.



ICP Neo main screen

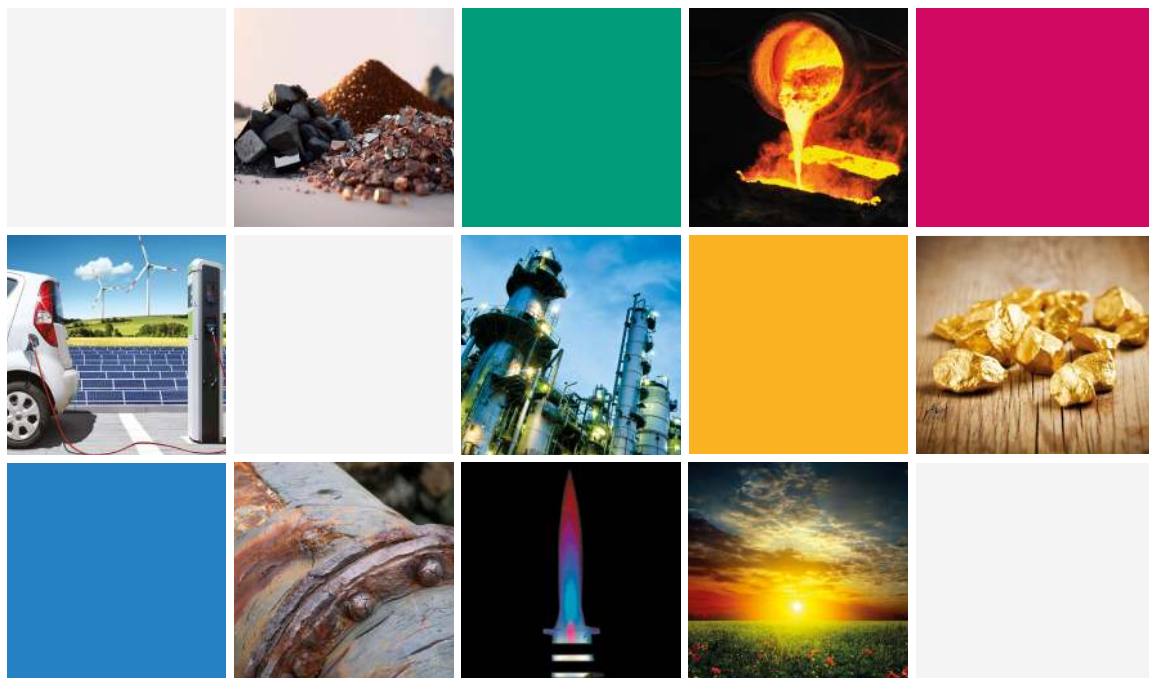
Line selection using S³ base



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Ultima Expert LT Specifications

Standard Configuration

Generator	Radio-frequency, solid-state 40.68 MHz, water-cooled
Spectral range	160 – 800 nm
Spectrometer	Thermally stabilized, 1 meter focal length with 2400 g/mm grating used in the 1st and 2nd order
Resolution	<5 pm for 160-320 nm and <10 pm for 320-800 nm
Plasma torch	Fully demountable torch with 3 mm i.d. alumina injector and quartz tubes
Sample introduction	Concentric glass nebulizer and glass cyclonic spray chamber, 3 channel peristaltic pump

Options

Instrument	Dual back-to-back gratings (4320 g/mm and 2400 g/mm) used in the 1st order offering resolution < 6pm for 160-450 nm and < 10 pm for 450 - 800 nm Far UV kit to extend measurement capability down to 120 nm for halogen elements analysis Autosampler AS-500 with optional rinse station Argon humidifier Introduction system kits for improved performance (small volume, organics, Hydrofluoric acid, high total dissolved solids) Concomitant Metals Analyzer for simultaneous measurement of hydride forming elements and other elements Oxygen kit for alkali elements in organics
Accessories	

Facility requirements

Dimension (wxdxh)	1696 x 698 x 604 mm
Weight	205 kg (452 lb)
Power supply	Single phase, 220-240 V, 50-60 Hz, 4 kVA
Environmental	20 to 80 % humidity, 18-24°C at ± 2°C
Argon	99.995 % purity
Nitrogen	160 to 190 nm, 99.999 % purity 120 to 160 nm, 99.9995 % purity
Exhaust	250 m³/h (150 cfm)