

Xevo TQ-S cronos

Xevo™ TQ-S cronos is a routine and compact benchtop tandem quadrupole mass spectrometer designed for a wide range of UPLC™-MS/MS applications. The Xevo TQ-S cronos features the proven ZSpray™ and StepWave™ technologies which ensure reproducible data can be obtained while maximizing system uptime. The flexibility of this system allows users to choose between ESI, APCI, UniSpray™ or ASAP ionization techniques whilst being confident of reliable, consistent, and accurate results. The Xevo TQ-S cronos makes it easier to confidently quantify more analytes using reproducible high acquisition rates with Xcelerated Ion Transfer™ (XIT). Using RADAR,™ which enables rapid switching between MS full scan and MS/MS acquisition modes, analysts can understand sample complexity and improve method development.



SYSTEM HARDWARE SPECIFICATIONS

API sources and ionization modes	High performance ZSpray dual-orthogonal API sources: 1) Multi mode source – tool-free ESI/APCI/ESCI™* (standard) NB – Dedicated APCI requires an additional probe (optional) 2) UniSpray™ ion source (optional) 3) Tool-free APCI probe (optional) 4) ASAP* (optional) Optimized gas flow dynamics for efficient ESI desolvation Tool-free source exchange Vacuum isolation valve Tool-free access to customer serviceable elements Plug-and-play probes De-clustering cone gas Software control of gas flows and heating elements
UniSpray ion source option	UniSpray is an ionization technique designed to broaden the scope of compounds which can be analyzed in a single run, including those which typically optimize in ESI, APCI or APPI. Enhanced ionization efficiency and desolvation allow the potential to combine several methodologies into one, or simply enable the operator to keep the same source for multiple methods, requiring less time performing set-up and routine maintenance, and more time delivering results
Ion source transfer optics	StepWave ion transfer optics delivering class leading UPLC™-MS/MS sensitivity. The unique off-axis design dramatically increases the efficiency of ion transfer from the ion source to the quadrupole MS analyzer at the same time as actively eliminating undesirable neutral contaminants

* Not available with waters_connect.™

Mass analyzer	Two high resolution, high stability quadrupole analyzers (MS1/MS2), plus pre-filters to maximize resolution and transmission while preventing contamination of the main analyzers
Collision cell	T-Wave™ enabled for optimal MS/MS performance at high data acquisition rates
Detector	Low noise, off axis, long life photomultiplier detector
Vacuum system	One split-flow air-cooled vacuum turbomolecular pump evacuating the source and analyzer; One vacuum backing pump
Dimensions	Width: 35.6 cm (14.0 in) Height: 60.0 cm (23.6 in) Depth: 93 cm (36.6 in)
Regulatory approvals/marks	CE, CB, NRTL (CAN/US), RCM

SYSTEM SOFTWARE SPECIFICATIONS

Software	Systems supported on waters_connect and MassLynx™ version 4.2
System setup and method development	System parameter checking and alerts Integrated sample/calibrant delivery system + programmable divert valve Automated mass calibration Automated sample tuning Automated MRM method development UPLC-MS/MS System Check – automated on-column performance test
Automated MRM scheduling (acquisition rate assignment)	Dwell time, inter-channel delay time, and inter-scan delay time for individual channels in a multiple MRM experiment can be automatically assigned (using the Auto-Dwell feature) to ensure that the optimal number of MRM data points per chromatographic peak is acquired. The Auto-Dwell feature can dynamically optimize MRM cycle times to accommodate retention time windows that either partially or completely overlap. This greatly simplifies MRM method creation, irrespective of the number of compounds in a single assay, while at the same time ensuring the very best quantitative performance for every experiment
waters_connect Software	The waters_connect Software provides a modern user experience with a HUB design and apps that provide a consistent connected user experience across all applications. It is built for applications with convenient access to scientific apps allowing accelerated time-to-results and result quality. There are common utilities that complete the end-to-end workflow and help increase productivity and efficiency. Confidently report results with accurate, reliable, regulation-standard data from application-focused quantitative workflows with built in traceability for utmost integrity



PERFORMANCE CAPABILITIES

Acquisition modes	Full scan MS
	Product ion scan
	Precursor ion scan
	Constant neutral loss
	Multiple reaction monitoring (MRM)
	Simultaneous full scan and MRM (RADAR)
RADAR	An information rich acquisition approach that allows you to collect highly specific quantitative data for target compounds while providing the ability to visualize all other components
Mass range	2 to 2048 m/z

For more detailed instrument performance specifications, please contact your local sales representative.

For patent information, please see www.waters.com/patents

Waters

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