

SELECT SERIES MRT

The SELECT SERIES™ MRT provides high resolution mass spectrometry independent of acquisition speed. Extending the benefits of traditional quadrupole Time-of-Flight (ToF) mass spectrometry and avoiding the compromises of other technologies, the multi reflecting ToF design delivers parts-per billion mass accuracy along with fine isotopic resolution to increase your confidence in compound identification. The instrument is operated via the SELECT SERIES MassLynx™ Acquisition System with simple and intuitive experimental setup, acquisition, and processing of mass spectrometry data delivering a truly game changing performance for cutting-edge research.



SPECIFICATIONS

Dimensions	Width:	855 mm (33.7 inches)
	Length/Depth:	1904 mm (75 inches)
	Height:	1700 mm (66.9 inches)
	Weight:	584 kg (1288 lbs)
Supported Inlets	ACQUITY™ Premier, ACQUITY H-Class Plus, ACQUITY I-Class Plus, ACQUITY M-Class*	
Lockspray Exact Mass Ionisation Source	Flow Rate: 10 µl/min to 2 mL/min	
Additional Source Options	DESI™ XS, NanoLockSpray™, ASAP, and APCI	
Mass Accuracy in MS and MS/MS	<200 ppb RMS error with internal calibrant	
MRT mode	<i>m/z</i> Range:	50–9600
	Mass resolution:	>200,000 FWHM @ <i>m/z</i> 785 and Independent of scan speed
REM mode	<i>m/z</i> Range**	100–2000
	Mass resolution	>300,000 FWHM @ <i>m/z</i> 785
Diamond mode	<i>m/z</i> Range	50–20,000
	Mass resolution:	>10,000 FWHM @ <i>m/z</i> 785 and Independent of scan speed
Quadrupole <i>m/z</i> Range	up to 8000 <i>m/z</i>	
Quadrupole Isolation	1 Da up to <i>m/z</i> 1000	
	2 Da up to <i>m/z</i> 2000	
Mass calibration	One single calibration valid for MS and MS/MS analysis. Calibration is independent from charge state of calibrant mass and of ionization mode	
Full scan sensitivity in MS/MS	Using a [Glu1]-Fibrinopeptide B solution of 100 fmol/µL infused at 5 µl/min with the instrument tuned for >200,000 resolution, the intensity of the most intense <i>y</i> " sequence ion from the MS/MS spectrum of the doubly charged precursor ion (785.8 Da) will be greater than 3333 counts per second.	

In-spectrum dynamic range	Up to 5 orders of magnitude
Acquisition rate	>30 Hz

SYSTEM SOFTWARE SPECIFICATIONS

Instrument control	MassLynx v4.2 with an intuitive modern chrome instrument control software interface
Acquisition modes	MS, MS/MS, MS ^E , DDA
Typical file size	180 MB/hr

SELECT SERIES MALDI

The new high-performance SELECT SERIES MALDI source, available exclusively on the MRT, improves both performance and ease-of-use, enabling rapid high quality imaging of tissues and surfaces in discovery and development applications. The novel source design uses a tightly focused laser beam profile, increasing signal-to-noise at high spatial resolutions with fast data acquisition rates. The SELECT SERIES MALDI MRT enables high intensity images to be acquired quickly with improved selectivity and sensitivity.



SPECIFICATIONS

Laser type	2.5KHz solid state Nd: YAG laser
Spatial resolution	< 15 μ M–100 μ M
Imaging speed	Up to 10 pixel/ sec
Sample stage	Full size micro titre plate Up to 3 microscope slides

** It should be noted that the above are not standard installation specifications. All SELECT SERIES instruments will be installed and tested in accordance with standard performance tests as detailed in the relevant Waters Installation Checklist document. Test criteria are routinely reviewed to ensure quality is maintained and are therefore subject to change without notice. See Site Preparation Guide and Product Release Notes for additional product and specification information. For patent information please see [waters.com/patents](https://www.waters.com/patents)*

***Using targeted windows.*

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