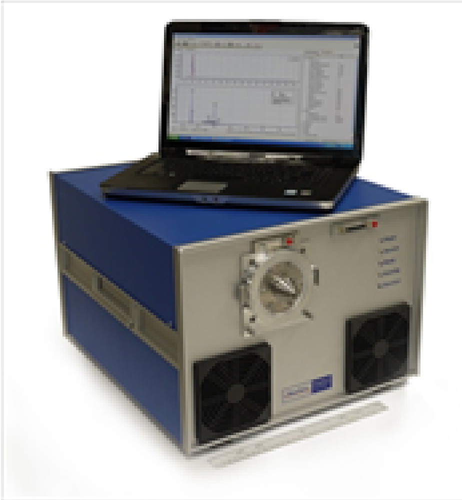
Ion Trap Mass Spectrometry

PRODUCT NAME

MT Explorer 50

TECHNOLOGY CATEGORY

Spectrometry;



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Model Number	MT50
Synopsis	The MT Explorer 50 (MT50) is a portable, field deployable 3-D ion trap mass spectrometer, developed to provide laboratory-level analysis in the field and designed for easy disassembly.Its atmospheric pressure inlet makes it easy to switch between a variety of sources such as ESI, AP MALDI, Direct Sampling (DS)-APCI (Atmospheric Pressure Chemical Ionization) and (DS)-sESI (Secondary electrospray) ion sources.
Category	Chemical; Biological; Explosives
Detection Method	Ion Trap Mass Spectrometry;
Detection Principle	Spectrometry;
Application	Laboratory Analysis; Trace Analysis; Screening; Emergency Response;
Type	Instrument
Availability	Commercially Available: 60 to 90 days for delivery
Readiness Level	9
Market Entry Date	May 2012
User Feedback Sources	Not Specified
Support Documents	Not Specified

Operational Parameters

Tested for Chemical Agents	Amenable by technology
Tested for ITF25TICTIMs	Amenable by technology
Tested For Explosives	Yes
Tested For Narcotics	Yes
Other Chemical Targets	Amenable by technology
Tested For Biological Agents	Bacillus Globigii spores
Other Biological Targets	Amenable by technology
Radiological Targets	Not Applicable
Library Size	Not Specified
Customize For New Targets	Not Specified
Sample Introduction	Vapor/Gas
Sensitivity Detection Limits	Not Specified
Known Interferents Inhibitors	Not Specified
False Positive Rates	Not Specified
False Negative Rates	Not Specified

MT Explorer 50

Start-Up Time From Cold Start To Sample Ready	Minutes
Response Time Sample Application To Output	5 to 30 seconds
Total Run Time	Minutes
Alarm Capability	Not Applicable
Software Control	PC
Other Operational Parameters	Mass Range: 35-2000 Da Scan rate: 1,000 to 8,000 Da/sec Resolution: <0.5 Da @ 2,000 Da & 4,000 Da/sec Mass Accuracy: <0.25 Da; Runs in both positive and negative ion modes. Sampling: Air intake, Thermal desorption port (with DART ion source)

Physical Parameters

Dimensions	12 x 17 x 20 in (30 x 43 x 51 cm)
Weight	77 lbs (35 kg)
Power Requirements	115, 220 V AC and/or 28 V DC
Noise Produced	Not Specified

Logistical Parameters

Transportability	Person-portable
Durability	Field Deployable; No shock/vibration testing.
Operating Conditions	15 to 30 °C (59 to 86°F)
Consumables	Metal Hydride (MH) cartriges
Solvents Reagents	Not Applicable
Calibration Schedule	Not Applicable
Suggested Routine Maintenance	MH cartridge needs to be recharged with water every 3 to 4 weeks. User can perform all necessary maintenance.
Shelf Life	10 years
Unit Cost	$100,000
Expected Operational Life	Indefinite
AvailableAccessories	Ion Sources available: ESI, nanoESI, APCI, secondary ESI, AP-MALDI, DART
Data Analysis Support Equipment	Laptop, Modas software
Data File Type Format	ASCII, mzML, Proprietary MTD format
Communications Interface	Ethernet
Maintenance Cost	Not Specified

Training, Shipping, And Other Information

Operator Skills Required	Minimal technical background
Training Available	Yes, 1 day
Manuals Available	Operator's manual
Reachback Service	Not Specified
Warranties	1 year limited
ITAR Export Regulations	Not Specified
IATA Shipping Restrictions	Not Specified
Approved Vendors	Not Specified