SHIMADZU

Specification Sheet

GCMS-QP2010 Ultra

The GCMS-QP2010 Ultra is our most advanced gas chromatograph mass spectrometer. Descended from the GCMS-QP2010 Plus, it features best-in-class scan speed and sensitivity. A newly designed and patented technology called ASSP™ (Advanced Scan Speed Protocol) allows this GC-MS to scan at 20,000 u/sec without sensitivity loss or spectral distortion. The result is an instrument that is perfect for "Fast GC" or Comprehensive GC/MS (GC × GCMSq) analyses. Productivity and sample throughput can be dramatically increased. Ecology mode saves power and carrier gas consumption allowing for a lower cost of ownership and less environmental stress.

Instrument

GC

Model:	Shimadzu GC-2010 Plus
Oven temperature:	Up to 450°C
Injector port temp:	Up to 450°C
AFC pressure range:	0 to 970 kPa

High-power oven with fast heat-up rate compatible with fast GC-MS (230 VAC)

MS

[GCMS Interface]

Type:	Direct connection with capillary column
Temperature:	50 to 350°C

[Ion Source]

Model:	EI (Standard), PCI (Option) EI, PCI and NCI with NCI source (Option)
Ion source temperature:	140 to 300°C
Filament:	Dual (Automatic Switching)
Electron energy:	10 to 200 eV
Emission current:	5 to 250 µA

Front access structure for easy maintenance

DI (Option)

Temp. setting:	Room temp. to 500°C

[Mass Analyzer and Detector]

Mass analyzer:	Metal quadrupole mass filter with pre-rod
Mass range:	*m/z* 1.5–1090
Mass resolution:	2M (FWHM)
High-speed scanning control:	Advanced Scanning Speed Protocol (ASSP™)
High-speed scan rate:	20,000 u/sec
Minimum measurement interval:	0.01 s (Maximum 100 scan/sec)
Detector:	Secondary electron multiplier with the patented overdrive lens and conversion dynode
Main pump:	Differentially pumped vacuum system (179/185 L/sec for He)
Fore pump:	30 L/min (60 Hz) Rotary pump
Column flow:	Up to 15 mL/min (He)

Software

[GCMSsolution Ver. 2.6]

Mode: Scan, SIM, FASST (Fast Automated Scan/SIM Type)
SIM: 64 channels × 128 groups
Energy saving: Ecology mode
Insert replacement: Easy sTop
Method creation: COAST (Creation of Automatic SIM Table), AART (Automatic Adjustment of Retention Time)
Library search: Similarity search, Similarity search with retention index, Index search
Instrument tuning: Autotuning for all ionization modes (EI, PCI and NCI)
Mass spectrum libraries (Option): NIST, Wiley, Pesticide Library, FFNSC Library (Flavor and Fragrance), Drug Library
Database (Option): Method Package (Residual Pesticide in Foods, EPA524, EPA525), Compound Composer Database Software for Simultaneous Analysis, EPA Optional Software, VOC Analysis Software, GC/MS Metabolomics Database
Quality control functions: QA/QC function for accuracy control, System check for instrument management, Security function for user management
File format: Compound Structure Format, best-suited for GLP
Maintenance support: MSNAVIGATOR
Report: Highly flexible report creation, Template

Installation Checkout Specifications

EI scan sensitivity: 1 pg octafluoronaphthalene
m/z 272 S/N > 500
PCI scan sensitivity: 100 pg benzophenone
m/z 183 S/N > 500
NCI scan sensitivity: 100 fg octafluoronaphtalene
m/z 272 S/N > 500

Installation Example

Power Requirements

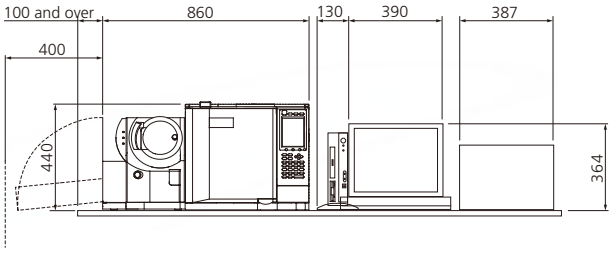
Frequency: 50/60 Hz
GC: 1800 VA (115 VAC)/*2600 VA (230 VAC)
* High-power oven
MS: 1000 VA (100 – 230 VAC)

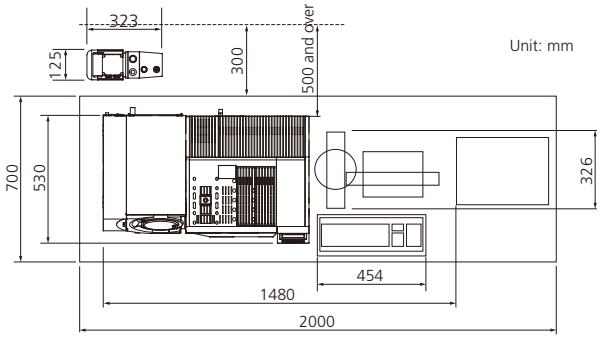
Environment

Temperature: Constant temperature between 18 and 28˚C
Humidity: 40 to 70 % (No condensation)

Size and Weight

GC/MS: 74 kg
Rotary pump: 10 kg
Size and weight of PC/Printer vary according to models.





For More Information

For more information on Shimadzu products, visit our website at http://www.shimadzu.com/

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