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 x 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)
  - **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

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 octafluoronaphthalene
m/z 272 S/N > 500

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 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
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