



Agilent Technologies

Authorized Distributor



GAS CHROMATOGRAPHY INSTRUMENT SOLUTION GROUP

Agilent 7890B Gas Chromatograph

**Resolve Your Search
For Reliability****The NEW Agilent 7890B GC**

Building the world's most trusted GC system is an ongoing process. With every step, we increase speed, improve functionality, and incorporate new analytical capabilities – all while never losing sight of the most important objective: results.

Now, Agilent has achieved a new level of GC performance and GC/MSD system integration.

Agilent's flagship 7890B GC system has everything you need to boost productivity, protect our environment through better resource management, and generate data with confidence. In addition, its seamless communication with the Agilent 5977A Series GC/MSD provides faster vent times and system protections when using hydrogen carrier gas.

Proven reliability meets improved performance

Agilent's 5th-generation electronic pneumatics control (EPC) and digital electronics are now complemented by improved detector specifications, making the 7890B Agilent's most dependable – and highest-performing GC – ever.

Higher sample throughput

Fast oven cool-down, new backflush capabilities, and advanced automation features help you get more done in less time, at the lowest possible cost per sample. All can easily be incorporated into your existing method.

**NEW integrated intelligence**

Early maintenance feedback lets you replace parts quickly, and address small problems before they lead to costly downtime. Built-in calculators and method translator are also integrated into the data system software to simplify method setup and system operation.

What's more, the improved GC/MSD communication cuts venting time by up to 40%, and protects the system from damage by stopping the flow of carrier gas during shutdown events.

Expanded chromatographic capabilities

A flexible EPC design enables sophisticated analyses, while an optional 3rd detector (TCD or ECD) lets you run multiple analyses on a single GC.

Leading-edge technologies increase analytical capabilities and reliability**Faster, more intuitive software**

New Agilent OpenLAB CDS is 40 times faster. Tools and wizards have also been added to help you turn results into answers, faster. **Page 10**

End-to-end protection for active compounds

Agilent now applies our proprietary deactivation technologies to our new Split/Splitless inlet option, Ultra Inert liners, gold seals, columns, and improved detectors. So you can be sure you're getting an inert flow path from injection to detection. **Page 9**

Enhanced inlet and detector modules

Numerous module enhancements let you customize your GC system in minutes to suit your changing application needs. **Page 8**

New integrated system maintenance and Parts Finder tools

Reduce downtime and operating costs with simplified maintenance and status monitoring. Find consumables and replacement parts faster with a 3D graphical tool. **Page 12**

Enhanced Capillary Flow Technology (CFT)

CFT modules enable leak-free, in-oven connections while improving throughput and reliability. An easy setup wizard gets you up and running quickly. **Page 6**

Wide choice of system components

Configure and automate your system to increase efficiency and productivity – and expand your analytical capabilities. **Page 14, 21**

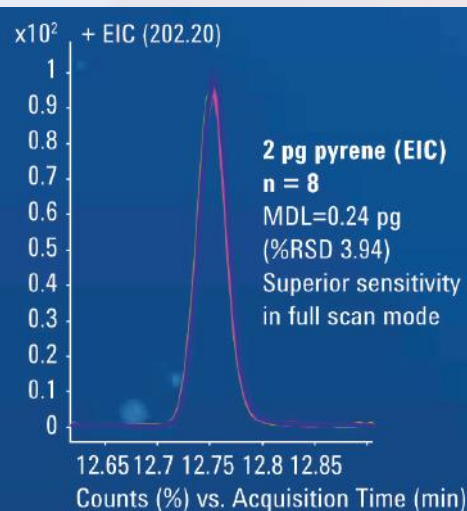
Reduce dependency on helium

Integrated calculators help you convert helium methods to more available – and less expensive – gases like hydrogen or nitrogen. **Page 12**

Agilent 5977B Series GC/MSD **The Source of New Possibilities**

Agilent's new High Efficiency Source (HES) gives you 10x improvement in capabilities.

The Agilent 5977B HES GC/MSD System builds on a long tradition of providing the most trusted single-quadrupole GC/MS system. We've now pushed the technological frontier even further by introducing our newest advancement: the HES – High Efficiency Ion Source. Fundamentally, mass spectrometry sensitivity depends on the number of ions measured. The ultra-efficient EI source of the 5977B HES GC/MSD maximizes the number of ions that are created and transferred out of the source body and into the quadrupole analyzer. This novel design revolutionizes single-quadrupole MS performance, offering two distinct advantages:



Advantage #1 10x Greater Sensitivity

Take advantage of the improved sensitivity and see detection limits as low as 1.5 fg IDL – performance that brings yesterday's triple-quadrupole limits of detection into today's single-quadrupole laboratory.

Advantage #2 10x Less Sample Required

You'll spend less time performing sample prep and maintenance while saving on shipping costs at the same time.



Analyzers for guaranteed chromatographic performance

The exceptional performance of the GC/MSD systems is validated by data from common food safety, environmental, and forensics toxicology methods.

OPTIMIZE WORKFLOWS IN FUNDAMENTALLY NEW WAYS

Work smarter with integrated GC, MS, and software technologies.

Agilent has completely reimagined electron ionization, allowing you to reimagine the way you think about your laboratory's operational workflow. See analytes that have been hidden up to now. Inject a fraction of the valuable sample that you currently require. Collect, ship, store, and process a fraction of the per-sample volume that you have in the past. Handle and dispose of less hazardous solvent. The list of potential operational efficiencies is endless!



Smart technology aligns GC and MS operation

The Agilent 7890B GC – with its efficient protocols and fully synchronized MS operation – is a dynamic partner for Agilent GC/MSD systems.

Integrated software tools simplify method development

From instrument settings to data analysis and reporting, MassHunter puts you in control – and makes your GC/MSD analysis routine.

As available sample becomes smaller, increasingly active, and more complex, you simply cannot afford interferences caused by flow path activity.

Agilent Inert Flow Path solutions ensure a reliably inert flow path for higher sensitivity, accuracy, and reproducibility.

Agilent 7010 Triple Quadrupole GC/MS Ultra-Efficient Ionization Redraws the Boundaries of GC/MS/MS



Take your GC/MS/MS analysis to a higher level of speed and sensitivity

The Agilent 7010 Triple Quadrupole GC/MS System allows you to quantify analytes at levels previously unachievable by any GC/MS. Its new high-efficiency Electron Ionization (EI) source decreases detection limits to the attogram level, so you can detect trace and ultra-trace levels of analytes with higher confidence than ever before.

More ions let you do more work in less time

In addition to decreasing detection limits, our new EI source improves throughput for enhanced analytical speed and productivity. It also enables lower-volume injections, allowing you to scale down your sample prep and reduce GC maintenance.

Agilent 7200 Q-TOF for GC/MS Achieve Maximum Qualitative and Quantitative Power for Challenging Applications

Maximize detection selectivity and confidently analyze both targets and unknowns

Complex matrices and trace-level analyses demand your best qualitative and quantitative data. Now, a new technology helps you find the answers you seek. Agilent 7200 Q-TOF for GC/MS: Achieve high resolution, accurate mass, full-spectrum sensitivity, and MS/MS selectivity for your toughest analysis. Agilent's 7200 Q-TOF for GC/MS is the world's first Q-TOF designed specifically for gas chromatography. It redraws the boundaries of GC/MS technology by combining the separation power of Agilent's 7890 Series GC with application-tested MS components from our 7000 Triple Quadrupole GC/MS and 6500 LC/Q-TOF systems. The results: robust GC/MS operation, outstanding selectivity, full spectrum acquisition with high sensitivity, fast data rates, and accurate mass information to simplify molecular characterization and structural confirmation.

Time-tested design with leading-edge enhancements



Full 7890 GC capabilities

Includes multimode inlet, high-performance backflush, and fast, low-thermal mass column technology.



High-sensitivity extractor ion source

Programmable up to 350 °C for robust compatibility with complex matrices.



Hot quartz monolithic hyperbolic quadrupole

Can be heated to 200 °C – without resolution or sensitivity loss – to eliminate contamination from high-temperature GC peaks.



Stable, high-performance TOF technology

Agilent's orthogonal TOF technologies deliver consistent performance for thousands of LC/TOF and LC/Q-TOF systems.



Internal reference mass (IRM) correction

When necessary, an IRM compound can be introduced into the source for maximum mass accuracy.



Removable ion source

Computer control of both the transfer line and vacuum interlock position ensure trouble-free ion source replacement in about 30 minutes.



Agilent 7100 Capillary Electrophoresis System Maximum sensitivity. Maximum productivity.

Capillary Electrophoresis (CE) offers fast separations with exceptional efficiency and resolution for charged substances such as biomolecules, low molecular weight basic or acidic drugs and ions—separations that are often difficult to achieve with HPLC. CE also excels where sample amounts are very limited and requires much less buffer than liquid or ion chromatography. Used in standalone mode, as the separations component of a CE/MS or as a complementary, orthogonal technology to LC, Agilent's new 7100 CE system brings unprecedented HPLC-like sensitivity to a wide range of analytical challenges.

The system delivers best-in-class analytical performance, the industry's broadest selection of detectors and plug-and-play compatibility with all of Agilent's 6000 Series mass spectrometers. Legendary Agilent reliability, familiar ChemStation software and the confidence of a single-vendor solution all add to the value equation—making the Agilent 7100 the clear choice for your lab's next (or first) CE or CE/MS system.



The Agilent 7100 CE system integrates seamlessly with all Agilent 6000 Series mass spectrometers, including single quadrupole, TOF, Q-TOF, ion trap, ICP-MS and triple quadrupole systems.

The Agilent "plug-and-play" sample introduction system requires no tedious fine-tuning and the unique design of the MS inlet makes the CE separation conditions independent of MS operation conditions.



Single-vendor, fully integrated CE/MS solutions.

CE/MS combines the short analysis time and high separation efficiency of CE with the molecular weight and structural information from MS. Unlike any other supplier, Agilent offers a fully integrated solution—with all system components from one vendor and a robust ESI-CE-MS interface that connects to all Agilent 6000 Series MS systems. Of course, single-source support and service from Agilent CE experts.



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Gulf Bio Analytical



Agilent Technologies
Authorized Partner Lab

CONTRIBUTING TO SCIENTIFIC KNOWLEDGE OF THE SOCIETY

GBA is authorized to operate the Agilent Partner Lab because of its expertise in providing laboratory equipment and setting up turnkey laboratory projects for hydrocarbon processing, food, forensic and other analytical and life sciences industries.

Speed, Accuracy, Productivity

The Agilent Partner Lab has the right workow solutions, instruments, accessories, consumables, and services specically designed for measurement of any organic and inorganic samples in an accurate manner, quickly and effectively. We can create, analyze and provide the

analytical solutions you need through quality results.

These results when combined with our informatics architecture, can manage large quantities of data while preserving integrity and security thus, enhancing your productivity manifold. The Partner Lab and our analytical solutions capabilities have already achieved wide acceptance in the region and beyond as evidenced by the fact that we have been receiving several samples for analysis regularly from various countries in the region, sometimes even as far away as South Africa.

Our highly experienced instructors train Agilent customers from all over the region at the Agilent Partner Lab facility in Dubai. They provide application specic training that imparts knowledge of theory and encourages the practical use of instruments and its operations. The application training covers industry segments such as oil and gas, food, environmental and clinical. The product training courses typically consist of theory of operation, installation, routine maintenance, method development, calibration and trouble

shooting. Expert trainers provide customized training at the Partner Lab and Solution Centre at Gulf Bio Analytical as well as on-site customer laboratories. During the training here, the laboratory sets up the same configuration as Agilent customers, runs the samples and trains them on a similar machine so that they can immediately start using their own instruments when they return home. We also offer customised on-site training anywhere in the region to suit your needs and requirements.



Agilent 7697A GC Headspace Sampler Your Genuinely Better Solution for Volatiles Analysis

Now there is a genuinely better headspace technology backed by four decades of Agilent expertise.

Based on Agilent's industry-leading 7890A GC and 7693A Automatic Liquid Sampler (ALS) architecture, the 7697A Headspace Sampler ensures an inert sample pathway for superior GC performance without analyte degradation or loss.

It is also packed with the latest productivity-boosting features, and powered by Agilent's rugged sampling technology to ensure the integrity of your every injection.



Proven technologies combined with the very latest advances in headspace sampling

When every second counts – and when everything from court cases to the safety of our drinking water is riding on your results – you need the best, most current headspace sampling technologies at your disposal. That is why we designed the 7697A Headspace Sampler with time-tested hardware features, such as advanced pneumatic controls and valve-based sampling, which deliver extraordinary precision, versatility, and performance. But advanced design and hardware features are only part of the story. We engineered our Headspace Control Software to be a fundamental part of the 7697A system – one that simplifies method setup while minimizing training time.



Agilent 490 Micro GC Capability that Delivers Sensitive Gas Analysis in Seconds

If you want the ability to measure anywhere and get the results you need in seconds, the Agilent 490 Micro GC is the ideal solution. With its rugged, compact, laboratory quality gas analysis platform, the 490 Micro GC generates more data in less time for faster, and better, business decisions. When the composition of gas mixtures is critical, count on this fifth generation micro gas chromatograph instrument to deliver every time. With its genuinely better technology, the Agilent 490 Micro GC gives you greater confidence in your analysis results and decision-making.

Designed for flexibility and ease-of-use

The Agilent 490 Micro GC is designed to provide maximum flexibility and customization. You are able to utilize a full palette of options – including optimized sample conditioning, up to two sample inlets and up to two carrier gases – to achieve greater sensitivity, performance, and practicality. What's more, the Agilent 490 Micro GC is easy to use. With available autonomous operation, engineers and analysts in a variety of industries can generate measurement results without special training or skills.

Options to suit your needs

- A 19-inch rack mounted chassis is available for process control applications. (Rack mounting of hardware may be required.)
- A self-contained, portable version can be used at measurement locations where no carrier gas or power is available. Built-in gas cylinders and rechargeable battery provide up to eight hours of productive field time.

