



New Agilent 7820A GC System

The easy
choice
for routine analyses.



Our measure is your success.



Introducing the Agilent 7820A GC System

Day after day reliability, day after day value.

Is your lab looking for better, more reproducible results for all your standard GC analyses, run after run and day after day? Are you looking for proven quality in an affordable solution that maximizes uptime, minimizes maintenance and provides the highest return on your investment? Here's exactly what you've been looking for: the new 7820A GC System from Agilent.

Agilent's affordable 7820A GC delivers the reliability you are looking for and performance you can count on—run after run, day after day.



Consistent, dependable results

The 7820A GC offers uncompromising GC performance for all your routine applications—including those that must comply with regulatory requirements. Agilent's proven electronic pneumatic control (EPC) and digital electronics ensure excellent reproducibility, as well as reliable accuracy and precision.

Easy to learn and use—for all users

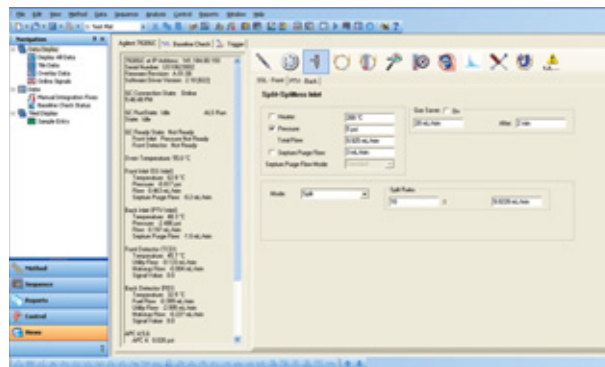
With an intuitive user interface and “minimalist” five-button keypad, the 7820A GC is very easy to operate, even for inexperienced or infrequent users. Because there are no gauges or manual gas knobs, errors are minimized. And with convenient, real-world design features and built-in self-diagnostics, the 7820A GC is also easy to maintain.



Simple 5-button keypad minimizes the chance of operator errors.

Lab-proven quality and long-life Agilent reliability

Why settle for “good enough,” when you can invest in quality? With a heritage of more than 40 years of GC leadership, Agilent has earned a worldwide reputation for reliability and uptime under the most demanding operating conditions.



Proven EZChrom Elite Compact software—running in chromatography labs around the world—makes it easy for all users to set up and operate the 7820A GC system. (Shown is a 7820A GC method creation screen.)

An easy choice for labs like yours

Now any lab can take advantage of Agilent's unmatched combination of reliable instrumentation, versatile software and application-matched columns and supplies. This robust new GC solution is designed to optimize routine performance, while minimizing complexity. And because it's from Agilent, it gives you the proven quality you expect from the GC industry leader, in an easy to own, compact package. Agilent has earned a worldwide reputation for reliability and uptime under the most demanding operating conditions.



Simplified operation and extra versatility help you get more done, every day.



New Electronic Pneumatic Control (EPC) module for the 7820A GC.

For maximum reliability and trouble-free operation under all conditions, the 7820A GC takes advantage of many of the engineering features and technology incorporated in Agilent's industry-leading GC portfolio.

For example, full electronic pneumatics control (EPC)—on all inlets and the detectors—ensures a better repeatability of retention times and peak areas. By setting gas flows via the software, you can now save all of the important parameters of your method.

Digital electronics keep your set points constant from run to run, and operator to operator. So you get better retention time repeatability, more consistent results, and less rework.

Standard high precision inlets

- Split/splitless (SSL) for large bore and all capillary columns
- Packed purged injection port (PPIP) for wide bore capillary and packed columns

Automatic valve control

For chemical and hydrocarbon processing applications, the 7820A GC system can automatically control up to two heated valves.

Retention time and area repeatability split/splitless inlet and FID Detector

Compound	Retention Time (min.)		Peak area (pA)	
	24C	30C	24C	30C
C13	3.7843	3.7820	45.2143	44.5105
C14	4.4213	4.4190	45.5790	44.8429
C15	5.0369	5.0344	457.8670	449.3625
C16	5.6238	5.6211	456.6820	449.5554

Retention time and area count changes are minimal—even as lab temperatures change throughout the day.

High-sensitivity Agilent detectors for every sample type

Flame ionization detector (FID)—Wide dynamic response range enhances accuracy and minimizes sample prep requirements for samples that contain very high or very low compound concentrations.

Nitrogen-phosphorus detectors (NPD)—Offers superior sensitivity and selectivity for nitrogen- or phosphorus-containing compounds, such as pesticide residues in food and environmental samples.

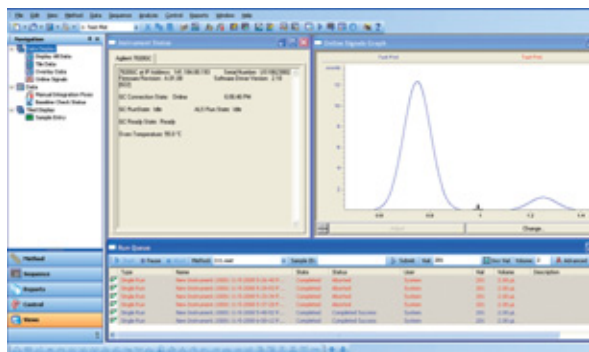
Thermal conductivity detector (TCD)—Single-filament design provides lower noise and higher sensitivity for general purpose applications.

Electron capture detector (micro-ECD)*—Combines unprecedented sensitivity and linearity with ruggedness and reliability—an ideal choice if your lab is analyzing halogenated organic compounds such as pesticides, PCBs and chlorinated solvents.

* Not available in Japan.

A complete, integrated software solution

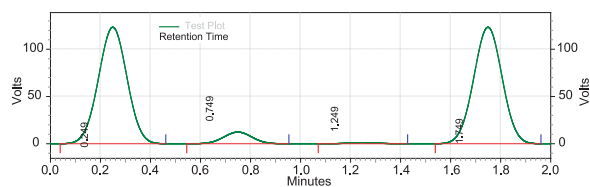
With the optional EZChrom Elite Compact software, it's easy to put all of the capabilities of the 7820A GC to work in your lab. A fast, powerful chromatography data system, EZChrom Elite Compact includes comprehensive data processing, flexible reporting and the full range of capabilities you would expect from a modern chromatography workstation. The software provides full control of two 7820A GCs (or one 7820A GC and one 1120 Compact LC) from a single PC.



Quick access to common tasks. View instrument status, current data and run queue on a single screen—and perform a run with just a couple of mouse clicks.

Area % Report

Data File: C:\EZChromCompact\Enterprise\Projects\Default\Data\New Instrument.10001
11-5-2008 6-00-12 PM.dat
Method: C:\EZChromCompact\Enterprise\Projects\Default\Method\111.met
Acquired: 11/5/2008 6:01:10 PM
Printed: 11/5/2008 6:11:04 PM



Test Plot Results

Retention Time	Area	Area %	Height	Height %
0.249	7600250	47.40	947584	47.39
0.749	759668	4.74	94752	4.74
1.249	75626	0.47	9472	0.47
1.749	7600250	47.40	947584	47.39
Totals	16035794	100.00	1999392	100.00

Easy to use standard reports. Use pre-defined reports or create totally customized layouts quickly and easily with built-in templates and an object-based, intuitive editor. Reports can include chromatograms, tables of results, run information and more—and can be generated with a single click of the mouse.

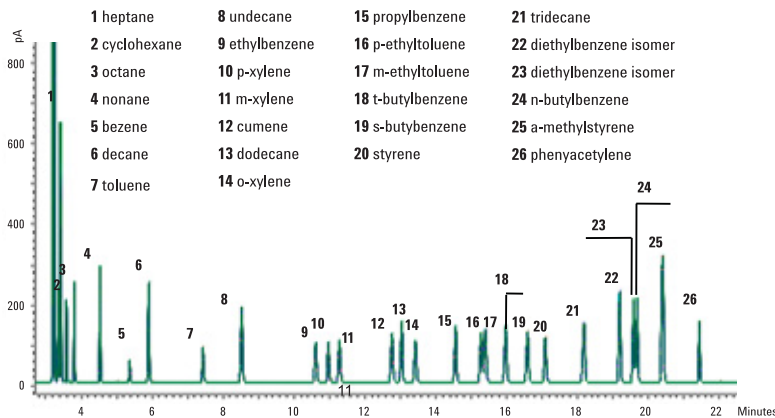


Software "Virtual Keypad"

If you prefer to use an integrator for data reporting, or third party software, a "software keypad" lets you create GC methods and sequences for control of the 7820A GC.

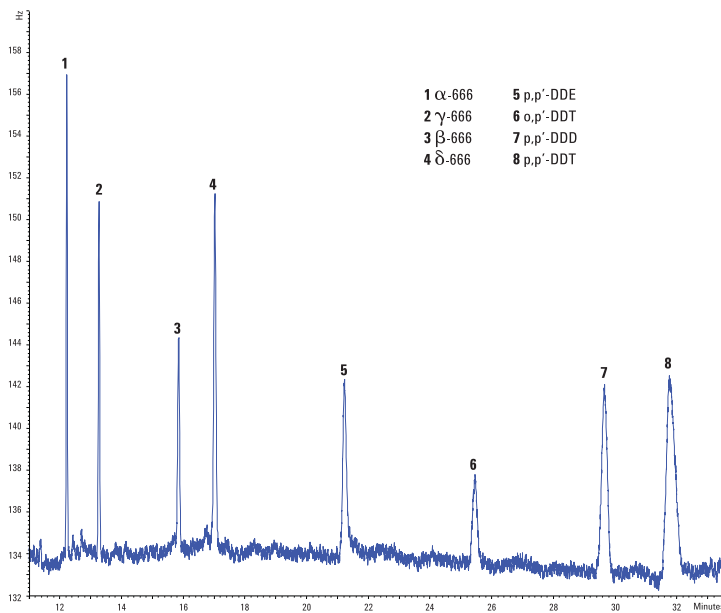
The uncompromising performance you expect from an industry leader.

The 7820A GC offers performance you can depend on for all your routine analyses: outstanding sensitivity, reproducibility, accuracy and precision. Exactly what you look for—and what you know you'll find—in every Agilent analytical solution.



Overlay of 10 runs demonstrates the 7820A system's outstanding repeatability.

FID analysis for aromatic solvent. An easy-to-use, single-column, method for aromatic solvent purity analysis meets the requirements of ten separate ASTM methods. EPC control and automatic injection ensures excellent repeatability for both retention time and peak area. In a single run, the wide dynamic response range of the flame ionization detector (FID) enables quantitative analysis of samples containing both very high and very low concentrations.



Chromatogram of 500 ppt organochlorine pesticides run on Agilent 7820A GC with ECD.

Trace pesticides in drinking water. The high sensitivity of the micro-ECD ensures confident detection, easily meeting stringent requirements of international regulatory agencies. The micro-ECD's reduced susceptibility to contamination allows analyses in a variety of complex matrices. In this example, using nitrogen in place of helium as the carrier gas dramatically reduces cost per sample.

Add automatic injection for even better repeatability and higher productivity

With an Agilent 7693A Injection Tower, you can eliminate the variables of manual injection, and increase your lab's throughput, too. With a capacity of up to sixteen 2 mL samples, this optional accessory offers unprecedented sample handling flexibility, and allows fully unattended operation—from injection all the way through final reporting.

Agilent J&W GC capillary columns and supplies—consistent performance and reliability

With the lowest column bleed, the highest column inertness, and the tightest column-to-column reproducibility, Agilent J&W GC columns provide you confidence to meet your productivity needs. Agilent quality supplies help keep routine maintenance routine, and give you an extra measure of confidence.

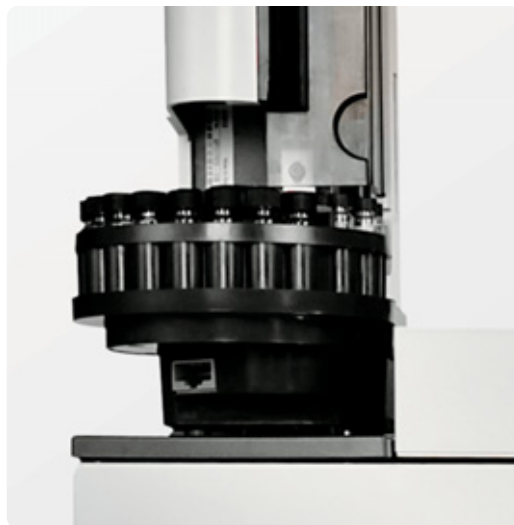


Choose Agilent J&W columns for a leak-free, inert flow path to ensure lowest bleed and best signal-to-noise performance in your Agilent 7820A GC system.

Maximize your uptime with Agilent's customer-enabled service and support features

The 7820A GC system's integrated hardware and software design features provide a completely new level of operational simplicity. There's a guided system set-up so that you can get your new system up and running without having to schedule a visit by an Agilent service representative.

Of course, Agilent's world-class customer service engineers and certified support partners are available to provide a full range of Agilent services, including installation, familiarization, training, maintenance, contractual repair and regulatory compliance support.



Enterprise Compliance Services

Agilent's Enterprise Edition compliance service is designed to provide a fully integrated qualification approach that's robust enough for your entire enterprise. It's a single comprehensive qualification protocol built on a fully automated software program—the patent-pending Agilent Compliance Engine—that provides consistently configured electronic reports, records and signatures to help speed compliance reviews and minimize your regulatory risk.



The Agilent Value Promise— 10 years of guaranteed value

In addition to continually evolving products, we offer something else unique to the industry—our 10-year value guarantee. The Agilent Value Promise guarantees you at least 10 years of instrument use from your date of purchase, or we will credit you with the residual value of that system toward an upgraded model. Not only does Agilent ensure a safe purchase now, we help ensure your investment is as valuable to you in the long run.

The Agilent Service Guarantee

Should your Agilent instrument require service while covered by an Agilent service agreement, we guarantee repair or we will replace your instrument for free. No other manufacturer or service provider offers this level of commitment — keeping your laboratory running at maximum productivity.



For more information

Learn more:

www.agilent.com/chem/7820A

Find an Agilent customer center in your country:

www.agilent.com/chem/contactus:cn

Contact us:

adinquiry_aplsc@agilent.com

Toll Free number: 800-820-3278

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