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## Технические характеристики

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Киргизия (996)312-96-26-47

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# GC/MS Ion Sources

Agilent GC/MS ion sources for single quadrupole and triple guadrupole GC/MS systems are at the pinnacle of GC/MS innovation, providing maximum performance to meet the needs of your analysis. They deliver confident trace analysis with low detection limits even in complex matrices.

Trusted Agilent innovation brings you technologies like highest ionization voltage and maximized ion transmission into the quadrupole analyzer. From electron impact (EI) to chemical ionization (CI) and extractor source to highefficiency source, Agilent GC/MS ion sources provide you with a versatile solution for maximum robustness for any analysis.



Part Number	Description
G2591B	Spare Inert Ion Source Assembly (Inert) for 5977/5975/5973 MSD.
G2591C	Spare Extractor Ion Source Assembly (Xtr) for 5977 MSD.
G2591D	Spare Stainless Steel Source Assembly (SS) for 5977/5975/5973 MSD.
G2591E	GC/MSD CI Ion Source Assembly (CI)
G2591F	GC/MSD CI Ion Source Assembly
G7008A	Inert El Ion Source Assembly 7000A Spare ion source for maintenance.
G7008B	High Sensitivity El Source 7000 GC/MS/MS Spare extraction El source (complete)
G7008C	High Efficiency El Source 7010
G7009A	CI Ion Source Assembly 7000A/B Spare ion source for maintenance

## Features

- High efficiency source (HES) and Inert Plus extractor El source maximize the number of ions that are created and transferred out of the source body and into the quadrupole analyzer for best performance
- High-sensitivity El extractor ion source delivers confident trace analysis even in complex matrices with an IDL less than 4 fg OFN
- Improved sensitivity with the high-efficiency EI ion source delivers low detection limits as demonstrated during installation specification with 2 fg OFN injected and IDL  $\leq$  0.5 fg

# JetClean Self-Cleaning Ion Source

The Agilent JetClean self-cleaning ion source maximizes instrument uptime and sample throughput by greatly reducing or even eliminating the need for manual ion source cleaning, resulting in an additional 1–2 days/month to perform analyses. For high-throughput labs performing food, environmental, chemical, forensic, and material analysis with complex matrices, the maintenance-free ion source results in significantly increased lab productivity. User feedback confirms that cleaning cycles can be reduced from once every 2 weeks to once every 3–6 months or even less frequently.

Agilent JetClean ion source utilizes software-controlled hydrogen flow to reduce or prevent contamination buildup and eliminate matrix deposits in the ion source. JetClean automated cleaning ion source not only increases instrument uptime, but yields more consistent data and reduces rework, giving you greater confidence in the results and real cost savings at the same time



Part Number	Description
G7031A	JetClean self-cleaning ion source for 5975 MS system with turbo pump, inert ion source and 7890GC
G7031B	JetClean upgrade, for EI - 5977 series
G7031C	JetClean self-cleaning ion source for 7000B, 7000C and 7010 MS systems
G7031D	JetClean upgrade for EI 7000D and 7010B MS
G7032A	JetClean self-cleaning ion source for EI/CI configurations of 5975, 5977, 7000B, C, D and 7010 A, B MS systems equipped with 7890GC

### Features

- Reduce manual cleaning frequency by 80% or more, depending on the application, for significantly extended maintenance-free operation periods
- Increase productivity by reducing or even eliminating time spent venting, disassembling, cleaning, reassembling, retuning, and recalibrating the instrument, for extended instrument operational time and reduced operator workload
- JetClean operations can be automatically activated at preset times without manual interaction, e.g., during idle periods
- Perform cleaning during analysis with the Acquire and Clean (concurrent) mode, or introduce hydrogen only when the system needs to be cleaned, post-acquisition, with Clean only (post-run) mode
- Requires only very low consumption of H<sub>2</sub>. Hydrogen can be provided in multiple ways, including from lecture bottles.
- Operations are controlled by Agilent MassHunter Software, allowing easy access to acquisition control, method development, qualitative and quantitative analysis, and reporting, while single quadrupole instruments are similarly controlled via OpenLab 2.3 software
- Available on Agilent 5977B, 7000D and 7010B GC/MS systems, and Agilent Intuvo, 8890, and 7890 GCs are compatible with JetClean operation
- Available as an upgrade for existing Agilent 5975, 5977, 7000B/C, and 7010 GC/MS systems



# Agilent QuickProbe Technology

Direct, real-time MS analysis of powders, solids, and liquids



# Realize Rapid Screening Without Sample Preparation

Is your forensic lab struggling with a growing caseload of samples that require fast, accurate analysis? Now you can enjoy the speed and simplicity of direct sample analysis on a platform that has been a workhorse in your laboratory for decades.

The Agilent QuickProbe is a real-time MS analysis technique that enables you to identify compounds with little or no sample preparation. The easy-to-use probe, combined with an Agilent GC/MS system, provides fast data analysis with automated library identification. The result: Near instantaneous determination of sample composition at a fraction of the cost.

For overloaded forensic laboratories, QuickProbe is the perfect solution to quickly determine the composition (including the presence of controlled substances) of tablets, powders, and liquids.

## Experience faster screening with Agilent QuickProbe technology

The QuickProbe technique is based on a vaporization inlet that is open to ambient air while having helium purged-flow protection to eliminate air leakage into the QuickProbe and MS ion source.

#### Separation in under a minute

QuickProbe includes our innovative sample introduction technology and provides rapid heating with the inlet and short separation column. It interfaces to your standard Agilent GC/MS to obtain in-vacuum electron ionization, followed by quadrupole-based mass analysis. QuickProbe analysis can be run without changes to the existing GC column, in under a minute.

#### Confidently identify compounds using electron ionization libraries

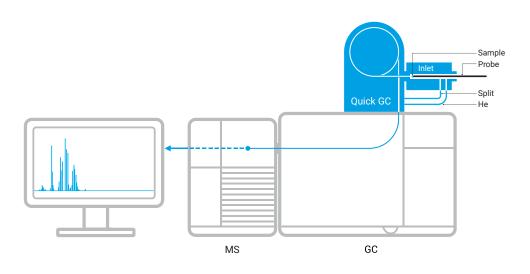
After components in the mixture are separated and quickly identified by MS detection, QuickProbe allows for fast data analysis, using an EI library such as NIST to identify names and structures, even at the isomer level.

### Easy as one, two, three

Introducing a sample into the QuickProbe is simple:

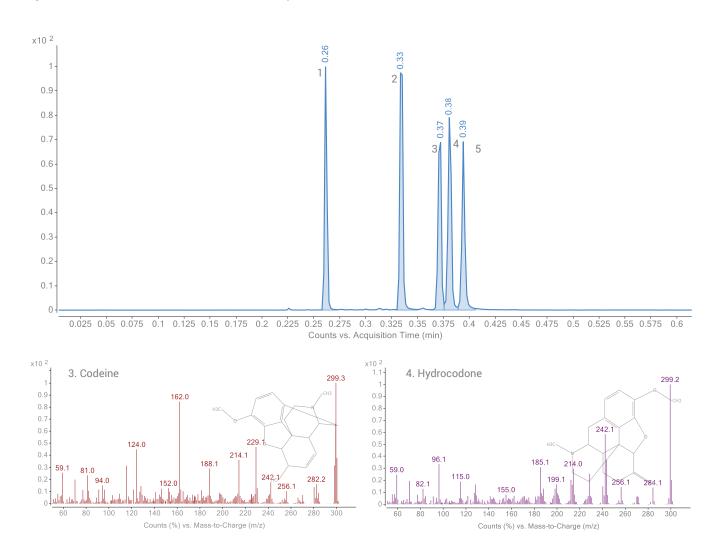
- 1. Touch the sample with the probe.
- Insert the probe into the QuickProbe inlet for thermal vaporization, followed by a quick separation within the QuickProbe column.
- 3. Have results in under a minute.

Compared to other similar solutions, QuickProbe is exceptionally costeffective. Operational costs are low with savings on reagents and disposal expenses. Plus, there's no need to retrain anyone since it uses GC/MS technology.



## Achieve faster sample analysis in a variety of forensic applications

Agilent QuickProbe is ideal for fast GC/MS analysis of tablets, powders, and liquids.



Opiate mixture (250 ng/µL in methanol) analyzed using Agilent QuickProbe in under one minute. List of components: 1) meperidine, 2) methadone, 3) codeine, 4) hydrocodone, and 5) oxycodone. Note that codeine and hydrocodone are chromatographically resolved, which allows identification of these isomers.

### Specialized consumables

For each sample type, Agilent offers a probe and probe holder that enable rapid sample analysis. The QuickProbe inlet also utilizes a newly designed fritted liner with touchless packaging to prevent any large particulates from contaminating the QuickProbe. Two off-the-shelf column types are available and custom columns may be made to order.



QuickProbe fritted liner with touchless packaging

QuickProbe probes with touchless packaging

QuickProbe probe holder

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