P&T, PAL3, TD, G9201AA, SP

Технические характеристики

По вопросам продаж и поддержки обращайтесь:

Алматы (7273)495-231
Архангельск (8182)63-90-72
Астрахань (8512)99-46-04
Барнаул (3852)73-04-60
Белгород (4722)40-23-64
Брянск (4832)59-03-52
Владивосток (423)249-28-31
Волгоград (844)278-03-48
Вологда (8172)26-41-59
Воронеж (473)204-51-73
Екатеринбург (343)384-55-89
Иваново (4932)77-34-06
Ижевск (3412)26-03-58
Иркутск (395)279-98-46
Казань (843)206-01-48
Калининград (4012)72-03-81
Калуга (4842)92-23-67
Кемерово (3842)65-04-62
Киров (8332)68-02-04
Краснодар (861)203-40-90
Красноярск (391)204-63-61
Курск (4712)77-13-04
Липецк (4742)52-20-81
Магнитогорск (3519)55-03-13
Москва (495)268-04-70
Мурманск (8152)59-64-93
Набережные Челны (8552)20-53-41
Нижний Новгород (831)429-08-12
Новокузнецк (3843)20-46-81
Новосибирск (383)227-86-73
Омск (3812)21-46-40
Орел (4862)44-53-42
Оренбург (3532)37-68-04
Пенза (8412)22-31-16
Пермь (342)205-81-47
Ростов-на-Дону (863)308-18-15
Рязань (4912)46-61-64
Самара (846)206-03-16
Санкт-Петербург (812)309-46-40
Саратов (845)249-38-78
Севастополь (8692)22-31-93
Симферополь (3652)67-13-56
Смоленск (4812)29-41-54
Сочи (862)225-72-31
Ставрополь (8652)20-65-13
Сургут (3462)77-98-35
Тверь (4822)63-31-35
Томск (3822)98-41-53
Тула (4872)74-02-29
Тюмень (3452)66-21-18
Ульяновск (8422)24-23-59
Уфа (347)229-48-12
Хабаровск (4212)92-98-04
Челябинск (351)202-03-61
Череповец (8202)49-02-64
Ярославль (4852)69-52-93

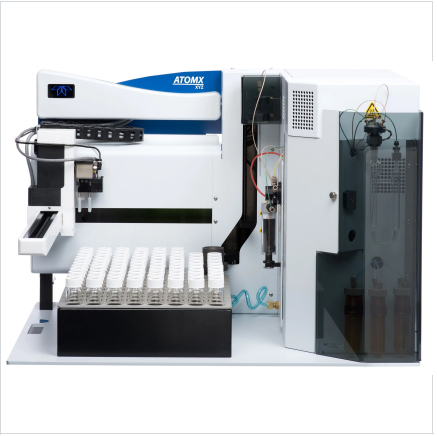
Россия (495)268-04-70
Киргизия (996)312-96-26-47
Казахстан (7172)727-132

afr@nt-rt.ru || https://agilent.nt-rt.ru/

Purge and Trap

Purge and Trap (P&T) analysis combines high-sensitivity detection of volatile organic compounds (VOC) in water, wastewater, soils, and sludges with low carryover.

The P&T instruments from Teledyne Tekmar, a world leader in Purge and Trap Sample Preparation Systems, accommodate many regulatory and standard methods (EPA, ASTM). They are the perfect complement for Agilent GC/MS systems and are available for purchase directly from Agilent.



Features

- Electronic Mass Flow Controller for precise and accurate delivery of purge gas
- Superior U-shaped trapping technology to adsorb VOCs of interest while minimizing retention of water and unwanted compounds
- Ultra-fast trap heater for rapid desorption of compounds from the trap and fast delivery to the GC
- Inert sample pathway to ensure low carryover
- Reduced trap cooling times for faster run times and higher sample throughput
- Automated methanol extractions for high level soil sample available on Atomx XYZ
- 84-position vial tray with vial chiller to keep sample cool (optional on Atomx XYZ)
- Foam detection and prevention, and sparge vessel heating options available
- Full diagnostics capabilities built into the software

Multiple Injection Techniques for Maximum Flexibility

Agilent PAL3 Series II autosampler systems

Increase your lab productivity by enhancing your injection capabilities

Every day, you perform several types of sample injection and manipulation. And now, the PAL3 Series II brings you flexible, high-capacity, and traceable options for sample preparation and injection into Agilent gas chromatographs.

The PAL3 Series II offers multiple sample injection techniques, including liquid injection, static and dynamic headspace, and solid phase microextraction. Smart chip technology inspires confidence by tracking syringe or SPME specification and use history through Agilent OpenLab and MassHunter software.

Integration with Agilent software lets you reduce downtime by planning preventive maintenance

Smart chip technology connects OpenLab and MassHunter software with details of the consumables in use:

- Specification and lot number
- First- and last-use dates
- Time spent within or above multiple headspace temperature ranges
- SPME phase details, maximum/minimum conditioning temperatures, and conditioning duration times
- Plunger counts

These and other details are reported to the Agilent data system used by your GC or GC/MS—with no need for added software or handheld controls.

Agilent

Trusted Answers

Options for Optimizing Your Vial Capacity

PAL3 Series II autosamplers are available in 85 and 120 cm lengths and accommodate multiple vial and sample plate options.

Model	Description
LSI 85	– Liquid sampling on an 85 cm long sampler rail
RSI 120	– Liquid and optional headspace sampling – 120 cm length to increase vial capacity – Room for further sample preparation options
RSI 85	– Liquid and optional headspace sampling – Space-saving 85 cm long sampler – The same sample preparation abilities as the RSI 120
RTC 120	– 120 cm long – Liquid and optional headspace sampling – Robotic Tool Change (RTC) capability automatically changes between tools for liquid, static/dynamic headspace, SPME Arrow, or SPME fibers

All models have liquid sampling capabilities, with added options for sampling and sample preparation:

- Static and dynamic headspace for standard or concentrated headspace sampling
- SPME Arrows and SPME fibers for solid phase microextraction
- Barcode readers for sample and data integrity
- Vortex mixers, solvent modules, and agitators for sample preparation flexibility
- Multiple configurations for 2, 10, or 20 mL vials

Agilent

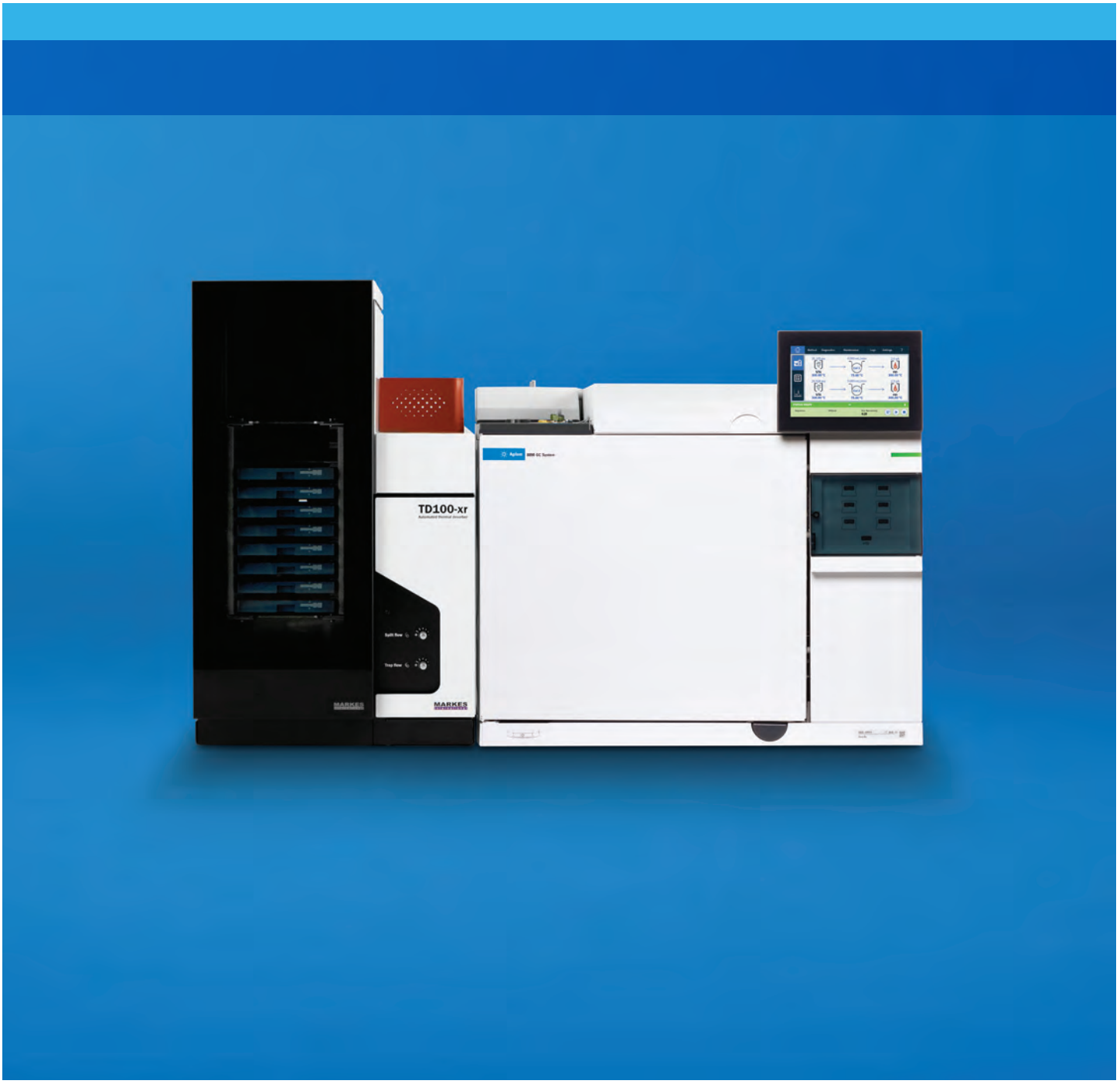
Trusted Answers

Agilent

Trusted Answers

The Best Analysis Begins with the Best Preparation

Thermal desorption solutions



Introducing the Ultimate Sample Introduction Technology for Gas Chromatography

Thermal desorption (TD) allows you to introduce volatile and semivolatile organic compounds from a wide range of sample matrices directly into a GC or GC/MS instrument. Versatile, highly sensitive, and fully automated, TD has become the preferred methodology for use in environmental testing, material emissions analysis, and flavor/fragrance profiling.

Now, Agilent is partnering with Markes International, which has advanced TD technology to an unprecedented level. Think of Agilent as your single source for sales, service, and support of TD-GC/MS systems.

TD technology offers significant advantages over solvent extraction:

- Increased sensitivity
- Compatible with solid, liquid, and gaseous samples
- Fully automated
- Greater than 95% recovery

UNITY-xr

Markes' UNITY-xr provides a versatile platform for all TD applications. Perfectly suited for increasingly rigorous laboratory demands, the UNITY-xr combines single-tube desorption with cryogen-free analyte refocusing and full compatibility with a variety of autosampler options.

Key features of UNITY-xr include:

- **Quantitative sample re-collection** of all the split flows enables repeat analysis of critical samples and easy method validation, and overcomes the one-shot limitation of conventional TD systems.
- **Electrically cooled sorbent trapping** to -30 °C offers quantitative retention of ultravolatile components and reduces running costs.
- **An inert, optimized flowpath** allows quantitative recovery of C2 to C44, including reactive and thermally labile species. Analyze from percent to sub-ppt concentrations.
- **Fully compatible with TubeTAG RFID devices**. It allows an individual TubeTAG to remain with a specific sample tube throughout its life, recording tube history and facilitating sample tracking between field and laboratory.
- **Fully method-compliant**, including stringent leak testing without heat or gas flow applied.
- **Fully upgradable** to multi-tube, multi-canister, and/or online automation.
- **Time-saving overlap mode** allows desorption of a subsequent sample to begin while GC analysis of a previous sample continues.
- **Electronic pneumatic control of carrier gas** and optional electronic mass flow control of split and desorption flows.
- **Intuitive control software** running alongside MassHunter and OpenLab CDS.

UNITY-xr

Air Server-xr
Round-the-clock online air/gas monitoring

Automation options for UNITY-xr

Air Server-xr and CIA Advantage-xr

Automated canister analysis and round-the-clock online air/gas monitoring.

- Connect to any UNITY-xr thermal desorption system
- Controlled flow of whole-air or gas , delivered directly into the electrically cooled focusing trap of UNITY-xr
- Cryogen-free system reduces costs and maintenance, while offering optimum analytical performance/sensitivity
- Compact design, especially useful for installation in mobile labs
- The CIA Advantage-xr offered by Agilent has capacity for up to 14 canisters, as well as built-in internal standard addition

ULTRA-xr

A mechanically simple TD autosampler for UNITY with onboard read/write of electronic tube tags.

- Internal standard addition capabilities available as an option
- Simple field upgrade for existing UNITY systems
- Unattended thermal desorption of up to 100 capped tubes

TD100-xr

Markes' TD100-xr is optimized for automated desorption of up to 100 tubes with or without RFID tags. It complements Markes' state-of-the-art modular UNITY-based TD systems and offers the same peerless analytical flexibility and performance, including a universal application range, cryogen-free operation, stringent leak testing, and quantitative re-collection.

Key additional features of TD100-xr include:

- 100-tube capacity means unattended operation all weekend
- Automated sample re-collection for repeat analysis ("50:50" capability)
- Onboard tag read/write capability for enhanced sample and tube traceability
- Stringent tube sealing via Difflok caps before and after desorption prevents loss of analytes and ingress of contaminants
- Mechanically simple automation—no uncapping/recapping required

TD100-xr 10 trays, each accommodating up to 10 capped tubes and incorporating "50:50" capability for automatic sample re-collection

Thermal desorption supplies for performing reliable air quality tests

Markes International TD platforms let you analyze single tubes, real-time air samples, and canisters with options for automated analysis.

You can count on Agilent for a selection of unique sampling tools for measuring volatile and semivolatile organics in challenging matrices.

Thermal Desorption Brings Versatility and Labor-Saving Benefits to a Wide Range of Applications

Air monitoring

Thermal desorption is the optimum solution for a wide range of air monitoring applications. By offering superior sensitivity, TD technology has supplanted solvent extraction and charcoal/CS^2 as the method of choice.

This trend is driven by recent advances in instrumentation, such as the ability to quantitatively re-collect split flow for repeat analysis. Applications of Markes' TD technologies include:

- Atmospheric research
- Ambient/urban air monitoring (TO-15/TO-17)
- Industrial (stack) emissions
- Odor assessment
- Indoor air quality
- Personal exposure monitoring
- Biological exposure assessment (breath testing)
- Soil gas and vapor intrusion assessment
- Counter-terrorism and chemical defense
- Photochemical Assessment Monitoring Stations (PAMS)
- SVOCs

Material emissions

Regulatory initiatives have led to increased focus on measuring chemical releases from everyday products and materials. Thermal desorption complements GC/MS in the evaluation of VOC releases from materials, offering both simple direct desorption of chemical content and method-compliant assessment of emitted vapors.

Markes' thermal desorbers are compatible with the widest possible ranges of target analytes at both trace and high levels.

Applications include:

- Paint, pigments, coatings, and adhesives
- Construction materials
- Furniture, furnishings, and vehicle trim components
- Carpet and other flooring products
- Toys and electronics
- Electronics for semiconductor industry

Multi-Tube Conditioner and Dry-Purge Unit (TC-20)

Markes' TC-20 is a compact, standalone device for the simultaneous conditioning of up to 20 industry-standard thermal desorption sorbent tubes. It lets you condition tubes in a fraction of the time and can reduce costs.

- Uses nitrogen rather than expensive helium
- Eliminates potential for analytical instrument contamination
- Purges excess water trapped during sampling to stop water from interfering with the sample analysis
- Improves productivity since you'll be able to avoid using valuable instrument time for conditioning sorbent tubes

Food, flavor, and fragrance

Flavor and fragrance profiling by GC/MS can be challenging, as profiles typically comprise hundreds of VOCs, with trace-level analytes often having the greatest effect on perceived aroma.

Thermal desorption offers a more reliable solution than conventional sample preparation methods, because it allows for a wide range of sampling methods; samples can also be re-collected for repeat analysis and validation.

Applications include:

- Aroma profiling of toiletries, consumer products, and plant extracts
- Off-odor and taint analysis
- Detecting key olfactory components
- Flavor and aroma profiling of coffee and beverages

Micro-Chamber/Thermal Extractor (µ-CTE)

Markes' µ-CTE is a versatile tool for testing VOC emissions from small samples. A controlled flow of air or inert gas is passed through all chambers, and sorbent tubes are attached to begin the vapor sampling process. These can then be analyzed by TD-GC/MS in the usual way.

- Four samples can be tested simultaneously, up to 250 °C
- Complies with standard methods for emissions screening
- Direct correlation with tests from environmental chambers
- Bulk and surface emissions can be sampled
- Perfect for quality control, product comparison, and testing of raw materials
- Suitable for a wide range of materials, including construction products, furnishings, and food

Environmental monitoring

Thermal desorption is now recognized as the technique of choice for environmental and workplace air monitoring. Relevant standard methods include: EN ISO 16017, EN 14662 (parts 1 and 4), prEN 13649, EPA 325, ASTM D6196, US EPA TO-17, and NIOSH 2549. Applications include:

- Atmospheric research
- Ambient/urban air monitoring
- Industrial (stack) emissions testing
- Odor monitoring
- Indoor air quality
- Soil gas and vapor intrusion assessment
- Trace volatiles and odors in water
- Workplace air monitoring/industrial hygiene
- Personal exposure monitoring (inhalation)
- Biological exposure assessment (breath testing)

The combined benefits of two industry pioneers

Agilent Technologies has a long history of innovation in GC and GC/MS, coupled with a reputation for building rugged instrumentation. In developing strategic business alliances, we seek companies that are similarly forward-thinking.

Markes International resoundingly meets our criteria. Markes is the world leader in thermal desorption technology, manufacturing products renowned for reliability and performance. Given Agilent's position as the leading global supplier of GC/MS instrumentation, the two companies share obvious synergy. This partnership ensures that customers will get the very best in quality products and support from a single source.

Agilent

MARKES international

Defense and forensics

Thermal desorption is used extensively for forensic science and chemical defense. Key forensic applications include:

- Detection and forensic analysis of drugs of abuse
- Arson residue analysis for accelerants
- Detection of trace explosive vapors
- Shotgun propellant
- Forensic analysis of inks, paper, and paint

The wide range of TD applications in chemical defense include monitoring agent destruction, battlefield protection, and civil defense (counter-terrorism).

An ever-expanding portfolio of solutions from the leader in GC/MS technology

Agilent's partnership with Markes International is another example of our ongoing goal of offering innovative new solutions for maximizing productivity. As the industry benchmark for quality, Agilent's instrumentation helps engineers, scientists, manufacturers, researchers, and government agencies achieve more accurate measurement and analysis.

Count on Agilent for:

- Workflow solutions that let you maintain stringent practices, from sample preparation to analysis.
- GC/MS software for managing large quantities of data, while preserving the integrity and security of your results. So you can make the most of every run, and every workday.
- Agilent-engineered supplies that expand your hours of continuous uptime.
- World-class global service and support that can reduce lab time, optimize instrument use, and increase productivity.

Agilent Barcode Label Printing Bundle (G9201AA)

GC Hardware Barcode Labeling Guide

Introduction

Several Agilent instruments have barcode enabled readers integrated into their hardware. This labeling guide provides a quick reference for printing barcode labels to be read with the Agilent 7693A Automatic Sampler Tray (G4520A) or Agilent 7693A Automatic Liquid Sample Tray (G4514A) with barcode reader (G4515A), Agilent 7696A Workbench (G4529AA, G4539AA), and Agilent 7697A Headspace Sampler (G4557A). The barcode labels specific in this guide are within the specification of the barcode readers on the hardware.

The barcode label material selected for these instruments is chemical resistant and has a wide temperature range. The barcode is printed with a thermal printer using commercial software designed for barcode printing.

The 7693A Automatic Sampler Tray and 7696A Workbench have the same label material to provide a barcode label for 2-mL vials. The ribbon material is the same for the sampler vials of the 7693A Automatic Sampler Tray, 7696A Workbench, and 7697A Headspace Sampler. Due to the larger diameter vial for the 7697A Headspace sampler, the label has a larger length barcode label. The temperature range of the Headspace barcode label is the same range as the 2-mL vial barcode label. If a higher temperature is required, a different label and ribbon is available for the 7697A Headspace sampler specified to 300 °C.

Vial Section

Because this guide is for Agilent vials specifically, the templates may need to be adjusted for different supplier's material. See section on Label placement on how to label the vials for the 7693A Tray.

Label placement

2-mL Vial

The label for the 2 mL vial is required to be placed at the shoulder of the vial within 13.4 mm from the bottom of the vial. The skew of the label needs to be within 1 mm. The barcode height is 4.6 mm on the label. See Figure 2 for the placement of the label on the vial, and the location of barcode on the label.

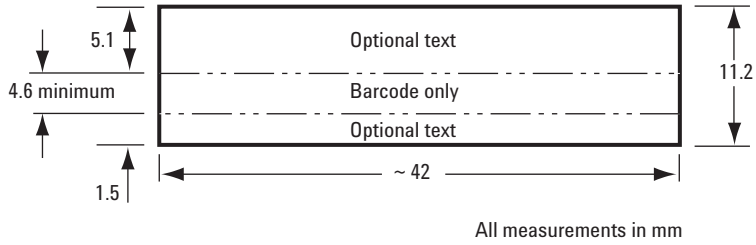


Figure 1. Recommended label template

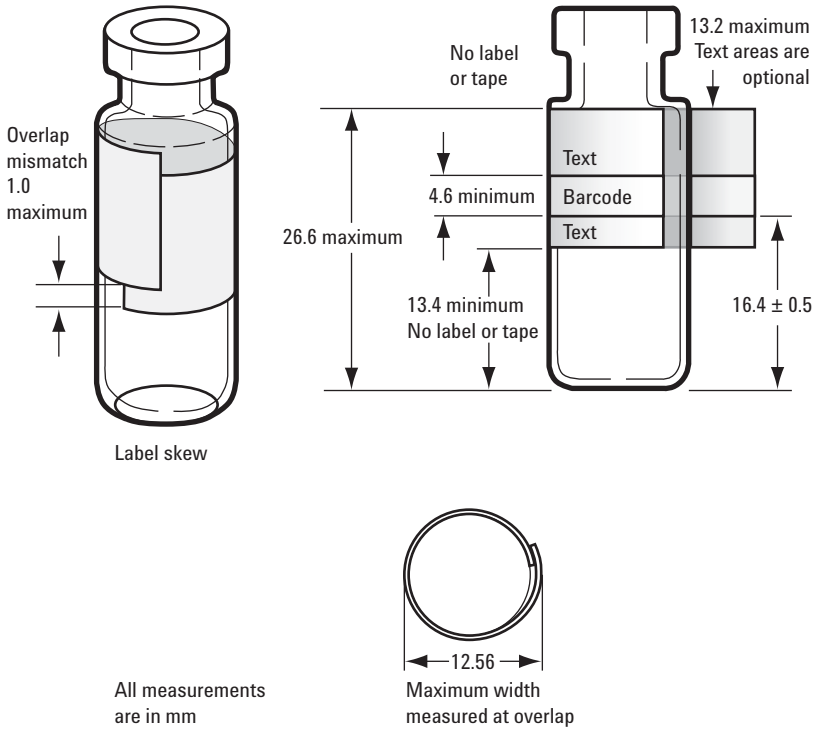


Figure 2. 2-mL Vial

Headspace Vial

The label for the headspace vial is required to be placed 20 mm from the bottom of the vial. The skew of the label needs to be within 1 mm. The start of the barcode is 22 mm from the bottom of the headspace vial. The barcode height must be at least 4.6 mm. See Figure 4 for the placement of the label on the vial, and the location of barcode on the label.

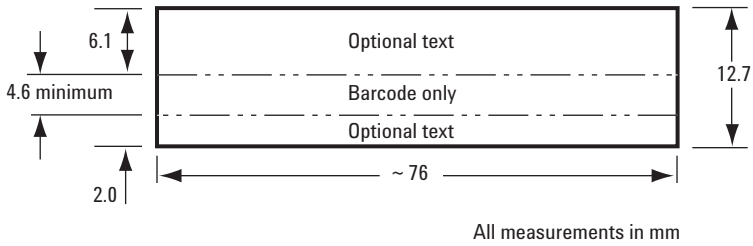


Figure 3. Headspace label template

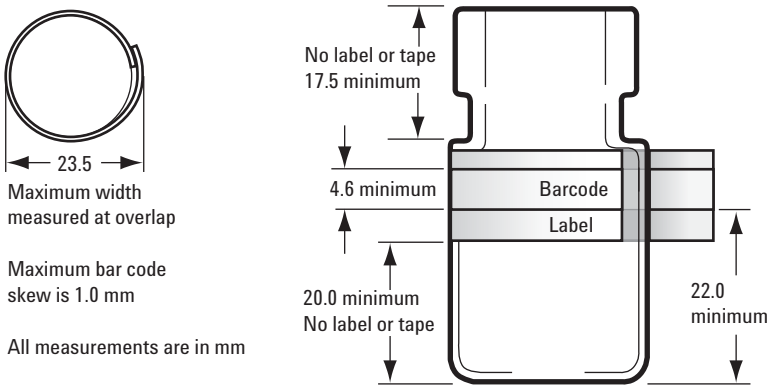


Figure 4. 7697 Headspace sampler

Features and Benefits

Laboratories use barcode labels for Sample ID and sample tracking. A barcode label is applied to a sample vial. The barcode can provide sample ID information, method information, or other sample information. Barcode labels printed from a spreadsheet or database minimize typos for sample identification. Minimizing this type of typo reduces errors transferring data to third party software such as LIMS

systems. More laboratories like to track samples throughout the lab. Barcoding sample vials tracks a sample through the chromatography progress.

Chemical Resistance

The label adhesive features high initial tack to form a tight seal. The label material has been evaluated for exposure to organic solvents such as DMSO, methylene chloride, methanol, ethyl acetate, and ethanol. The barcode labels can be placed on glass, polypropylene, polystyrene, PVC, and plasticized surfaces.

Symbolizes

Agilent hardware can read several barcode symbols such as 128, 3 of 9, 2 of 5, and UPC bar codes.

An Agilent 7697A Headspace sampler can read barcode symbols 128, 3 of 9, 2 of 5, UPC-A, EAN/JAN13, EAN/JAN8, UPC-E.

Barcode Label Templates and Overview

Using the barcode printing software program with the predefined label template enables a user to choose a data source of either hand entry, excel, database, or database through an OBDC connection. The database connection of OBDC enables a LIMS user to query sample information into the printing software from most LIMS systems with minimum set-up from a LIMS support source. For example, sample information can be imported from an excel sheet. See Table 1.

Table 1 Spreadsheet of data

Sample ID (Barcode information)	Sample description	Date
13333	Sample 13333	07/16/2010
13334	Sample 13334	07/16/2010
13335	Sample 13335	07/16/2010
13336	Sample 13336	07/16/2010
137133713371	Sample (13337)	07/16/2010
138133813381	Sample (13338)	07/16/2010
139133913391	Sample (13339)	07/16/2010

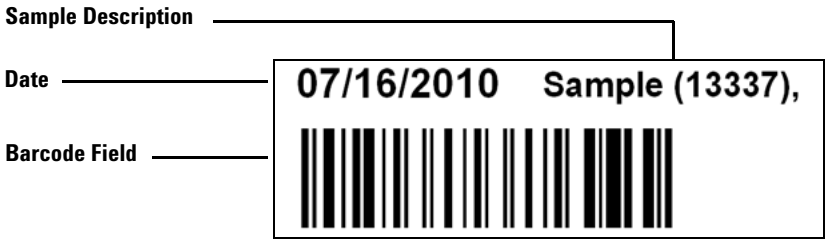


Figure 5. Example of the 2 mL vial for 7693A Tray and 7696A Workbench product

Figure 6. Example of Headspace Label for the 7697A Headspace product

The provided templates are used as a guide, and can be modified for a specific application or sample data. Twelve characters alpha, numeric, or combination can be converted to barcode and read by the hardware. The sample description field is also 12 characters alpha, numeric, or combination. The date field can be modified for other formats or additional data.

Specifications

Label

7693A Tray and 7696A Workbench (5190-3180) with Ribbon (5190-3177)

7697A Headspace up to 120 °C (5190-3181) with Ribbon (5190-3178)

7697A Headspace up to 300 °C (5190-3182) with Ribbon (5190-3179)

Ribbon

7693A Tray, 7696A Workbench, 7697A Headspace up to 120 °C (5190-3185)

7697A Headspace up to 300 °C (5190-3184)

Labels

The labels are chemical resistant and the material has been evaluated for exposure to organic solvents such as DMSO, methylene chloride, methanol, ethyl acetate, and ethanol. It is recommended that evaluations for the specific chemicals and temperature conditions in the laboratory are performed.

Printer

Barcode Thermal printer (G9201AA)

Software

Barcode printing software ZebraDesigner Pro2

Templates

Available on Agilent GC and GC/MS Hardware User Information & Instrument Utilities Software DVD (B.01.06 or higher, G4600-64006).

Printer

Thermal printer 300 dpi 10/100 ethernet

Dimensions of the printer:

Width: 7.6 in/193 mm

Height: 7.5 in/191 mm

Depth: 10.0 in/254 mm

Weight: 4.6 lbs/2.1 kg

PRINT SPEED

Maximum print speed 4 in/102 mm per second

RESOLUTION

300 dpi/12 dots per mm

CONNECTIVITY

Serial RS-232

USB V1.1

10/100 Ethernet

OPERATING CHARACTERISTICS

Environmental

Operating temperature: 40 °F/4.4 °C to

105 °F/41 °C

Storage temperature: -40 °F/-40 °C to 140 °F/60 °C

Operating humidity: 5% to 95% non-condensing

Storage humidity: 5% to 95% non-condensing

Electrical

Auto-detectable (PFC Compliant) 100-240 VAV,

50-60 Hz

Agency Approvals

Emissions: FCC Part 15, Subpart B, VCCI, C-Tick

Emissions and Susceptibility: (CE): EN55022

Class-B, EN61000-3-2, EN61000-3-0 and

EN55024, CCC

Safety: CB Scheme IEC IEC 60950:1991 +A1

+A2 +A3 +A3 +A4, TUV NRTL, IRAM NOM,

AAMI, CCC

Summary

This guide provides a printing solution for Barcode Labels for the Agilent 7693A Automatic Sampler Tray (G4514A) with barcode reader (G4515A), Agilent 7696A Workbench (G4529AA, G4539AA), and Agilent 7697A Headspace Sampler (G4557A). The barcode labels specific in this guide are within the specification of the barcode readers on the hardware. Even though the barcode labels are chemical resistant and have a wide temperature range, it is recommended that evaluations for the specific chemicals and temperature conditions in the laboratory are performed.

Definitions

ODBC Open DataBase Connectivity

Agilent Thermal Separation Probe

A fast and easy alternative MS probe for analyzing solid, liquid, and slurry samples

In the field or in the lab, preparing your sample can cost you valuable time. The Agilent Thermal Separation Probe (TSP) puts quick sample analysis at your fingertips, with a simple and clean process:

- Little or no sample preparation is required
- Eliminates the risk of contamination problems associated with traditional direct sample probes
- Control sample delivery by temperature and fine-tuned split ratios

Used for complex samples in food testing, forensic, and environmental applications, Agilent TSP works as part of Agilent GC/MS systems and is compatible with the Agilent 5975T LTM GC/MSD – the industry's first transportable GC/MS system – and the Agilent 7890A GC with the 5975C Series MSD, 7000 Series Triple Quadrupole MS, 220 and 240 Ion Trap MS, and the 7200 Q-TOF MS.

The Measure of Confidence

Agilent Technologies

In the field or in the lab, the Agilent Thermal Separation Probe gives you **greater flexibility** in your sample analysis

Little or no sample prep required

With the Agilent Thermal Separation Probe, you can achieve results faster, because little or no sample preparation materials are required. Simply place a few grains of solid sample powder – or pipette 1 µL for split/splitless inlet – or up to 50 µL (for Multimode Inlet) of liquid, into disposable micro-vial. Then insert the probe and vial into a heated split/splitless inlet or temperature programmable Multimode Inlet (MMI). As the sample vaporizes, non-volatile or low-volatile high boiling point compounds remain in the disposable micro-vial, allowing the system to remain clean.

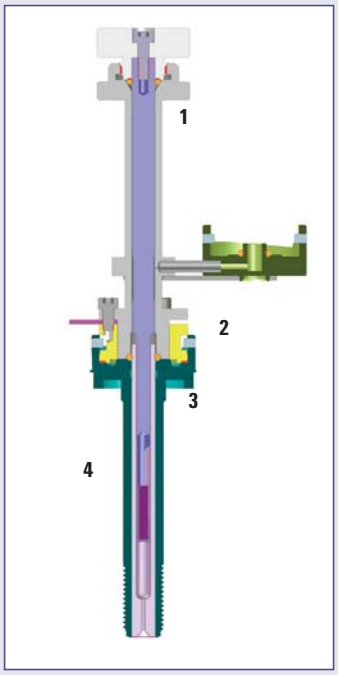
More flexibility, less risk

TSP uses the GC inlet to efficiently introduce the sample into the system. Because of this direct interface, the operator can take advantage of the flexibility of the inlets to effectively dilute neat samples in the split mode, or analyze trace compounds in the splitless mode. Contamination problems associated with traditional solid probes are avoided easily.

Dual control of sample delivery

As with a traditional solid probe, the TSP uses temperature for the primary control of sample delivery to the GC/MS. But the TSP has the advantages of also using inlet split ratios to fine-tune the process. Adjustment of split flow minimizes column and detection overload and detector contamination. As an added advantage, high helium flow allows the TSP samples to be changed without air introduction to the system while the inlet is opened.

Independent temperature programming for the inlet and the GC column supports the analysis of multi-component mixtures. Traditional direct sample probes cannot equal the versatility and performance of the TSP for both simple and complex samples.



1. Probe
2. TSP Adapter
3. Inlet liner with O-ring
4. TSP sample vial

How the Thermal Separation Probe works to increase your uptime

The cutaway diagram shows the TSP inserted into a Split/Splitless or Multimode Inlet.

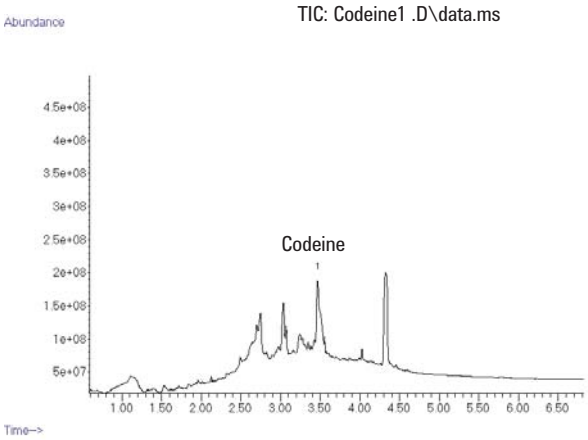
- Only the compounds that can be vaporized by the inlet temperature are taken by carrier gas into the column and detector for measurement.
- Other non-vaporized compounds with high boiling points – such as "dirty sample matrix" compounds that can contaminate the GC liner and column – remain inside the micro-vial and can be discarded after each injection.

As a result, the build-up of active sites in the inlet liner and cross-contamination between samples is significantly reduced.

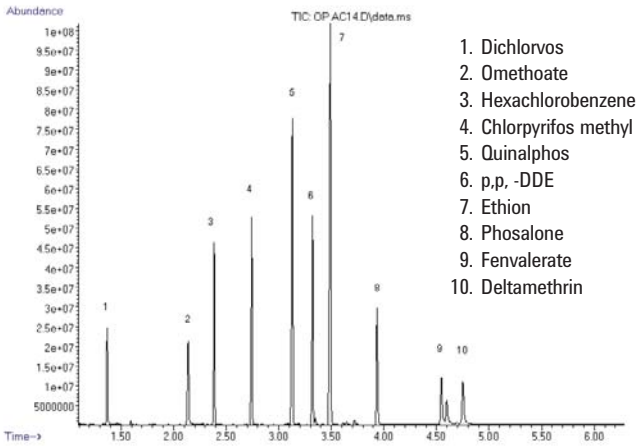
Achieve **faster sample analysis** in a variety of applications

Agilent Thermal Separation Probe is ideal for faster GC/MS analysis of a variety of 'dirty' liquid, solid, and slurry samples in food testing, forensic, and environmental applications.

Screening of drugs and poisons by directly measuring blood sample without sample preparation using the Agilent 5975C GC/MS or Agilent 5975T GC/MS

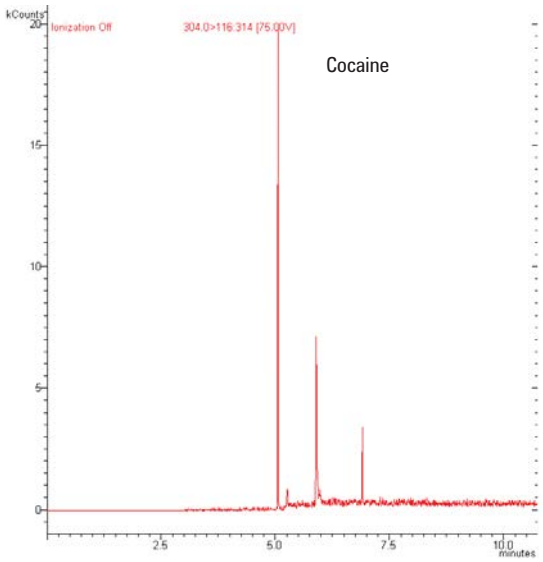


Fast screening for pesticides on fruits and vegetables for on-site measurement using Agilent 5975T GC/MS



1. Dichlorvos
2. Omethoate
3. Hexachlorobenzene
4. Chlorpyrifos methyl
5. Quinalphos
6. p,p, -DDE
7. Ethion
8. Phosalone
9. Fenvalerate
10. Deltamethrin

Analysis of cocaine in hair using Agilent 220 Ion Trap GC/MS



Adaptable by sample type

There are two primary GC/MS uses for the Agilent Thermal Separation Probe:

- **Complex samples** (such as soil, food products, and biological matrices). After the sample has been thermally desorbed into a standard analytical column, the components can be separated and quickly identified by MS detection.
- **Neat samples** (such as street drugs and purified compounds from synthesis reactions). To avoid column and detector overload, neat samples are typically desorbed at a high split flow. The sample is transferred to the MS via a short 1 m deactivated capillary column. A full-scan mass spectrum can be collected within a few seconds since no GC separation time is required.

Everything you need in one complete kit

For easy setup and use, the Agilent Thermal Separation Probe includes the items shown here. You'll also receive a CD with an operational manual to assist in setup and use.

Agilent Technologies

По вопросам продаж и поддержки обращайтесь:

Алматы (7273)495-231
Архангельск (8182)63-90-72
Астрахань (8512)99-46-04
Барнаул (3852)73-04-60
Белгород (4722)40-23-64
Брянск (4832)59-03-52
Владивосток (423)249-28-31
Волгоград (844)278-03-48
Вологда (8172)26-41-59
Воронеж (473)204-51-73
Екатеринбург (343)384-55-89
Иваново (4932)77-34-06
Ижевск (3412)26-03-58
Иркутск (395)279-98-46
Казань (843)206-01-48
Калининград (4012)72-03-81
Калуга (4842)92-23-67
Кемерово (3842)65-04-62
Киров (8332)68-02-04
Краснодар (861)203-40-90
Красноярск (391)204-63-61
Курск (4712)77-13-04
Липецк (4742)52-20-81
Магнитогорск (3519)55-03-13
Москва (495)268-04-70
Мурманск (8152)59-64-93
Набережные Челны (8552)20-53-41
Нижний Новгород (831)429-08-12
Новокузнецк (3843)20-46-81
Новосибирск (383)227-86-73
Омск (3812)21-46-40
Орел (4862)44-53-42
Оренбург (3532)37-68-04
Пенза (8412)22-31-16
Пермь (342)205-81-47
Ростов-на-Дону (863)308-18-15
Рязань (4912)46-61-64
Самара (846)206-03-16
Санкт-Петербург (812)309-46-40
Саратов (845)249-38-78
Севастополь (8692)22-31-93
Симферополь (3652)67-13-56
Смоленск (4812)29-41-54
Сочи (862)225-72-31
Ставрополь (8652)20-65-13
Сургут (3462)77-98-35
Тверь (4822)63-31-35
Томск (3822)98-41-53
Тула (4872)74-02-29
Тюмень (3452)66-21-18
Ульяновск (8422)24-23-59
Уфа (347)229-48-12
Хабаровск (4212)92-98-04
Челябинск (351)202-03-61
Череповец (8202)49-02-64
Ярославль (4852)69-52-93

Россия (495)268-04-70
Киргизия (996)312-96-26-47
Казахстан (7172)727-132

afr@nt-rt.ru || https://agilent.nt-rt.ru/