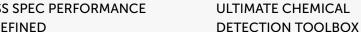


GRIFFIN™ G510

Person-Portable GC-MS Chemical Identifier



The Griffin™ G510 Gas Chromatograph Mass Spectrometer (GC/MS) is a versatile, person-portable chemical identifier. It complements presumptive techniques used during emergency missions, by enabling responders to analyze all phases of matter (liquid, solid, vapor) and by performing rapid field- confirmation of chemical hazards. The integrated heated sample probe enables hot zone operators to identify vapor-phase chemical threats within seconds when operated in Survey Mode. The integrated split/splitless injector allows for environmental, forensic. and hazardous material sampling via syringe injection of organic liquids. The 9" on-board touchscreen displays guided user prompts and can be operated while wearing full personal protective equipment (PPE) downrange. It is built with an IP65-rated enclosure for harsh environments and supports passive defense, interdiction, elimination, and consequence management missions. Long-lasting, on-board batteries ensure every mission is supported from beginning to end.



Versatile in-field sampling options for vapor, liquid, and solid samples

- · Laboratory level, gold-standard linear quadrupole • Vapor sampling probe with rapid-response survey mode
 - Integrated split/splitless liquid injector accepts direct injection of organic liquids
 - Available Prepless Sample Introduction (PSI) Probe, Sample Prep Kit (SPK), and Touch-And-Go (TAG™) capability for direct analysis of solid samples
 - Effortlessly links with SPME and headspace sample collection tools
 - High-fidelity, low thermal mass (LTM) GC column for unsurpassed resolution in challenging environments







BUILT FOR EVERYONE, BUILT FOR EVERYWHERE

Completely self-contained and mission-ready from the field to the lab

- IP65-rated, dust-tight and spray-resistant
- Built-in active pumping system eliminates need for an external service module
- · Integrated carrier gas, batteries, and training reference videos
- Simple field maintenance activities for increased uptime
- Extensive training, service, and reachback options available
- Optional vehicle mount kit for shock and vibration protection during off-road or harsh transport

MASS SPEC PERFORMANCE REDEFINED

Confidently identify unknowns and take action with guided prompts and simple threat alarms

- mass analyzer
- Full NIST and SWGDRUG on-board libraries provide confirmatory identification and analysis of trace compounds, unknown chemicals, and mixtures
- Simple on-board touchscreen with navigation assistant and Method Selector tool
- Visual and audible alarm confirmation with limited data interpretation On-board WiFi and GPS assist in maintaining result
- · Remote monitoring and control with WiFi hotspot

defensibility



SPECIFICATIONS

Griffin G510

Technology

Dimensions (LxWxH)

Gas Chromatography/Mass Spectrometry (GC/MS)

32 to 104 °F (0 to 40 °C): <95% relative humidity

4 hrs in Survey Mode, 2 hrs in Confirmation Mode;

On-board helium; external helium connector, automatic

Audible and visual (touchscreen and handheld probe)

enclosure is dust-tight and spray-resistant

15 minutes to full operation from cold

On-board FC-43 (Perfluorotributylamine)

13.25 x 13.25 x 15.75 in (33.7 x 33.7 x 40 cm) - includes batteries, carrier gas, and vacuum system

Road-Ready Version: 16.7 x 14 x 15.2 in (with G510 installed)

- Off-Road Version: 16.7 x 17.5 x 16.2 in (with G510 installed)

Sealed for Survey Mode operation in hot-zone; IP65-rated

100-240V 50-60Hz (220 W max); 19V (DC); 2 x #2590 @ 15V Li

36 lbs (16.3 kg) - includes batteries, carrier gas,

-13 to 131 °F (-25 to 55 °C)

Ion batteries (included)

hot swappable

and vacuum system

Optional Vehicle Mount Kit

(LxWxH)

Weight

Operating Temp / Humidity

Storage Temp

Decontamination

Power Supply

Battery Life

Start Up Time

Calibrant

Carrier Gas

Alerts

System Interface

Display

9" Multitouch Color Display

switching (Hydrogen capable)

(1280x720 WVGA;1300 nits brightness)

Software GSS Level 1 Touch: multiple user levels

2 x USB 2.0, Bluetooth 4.0, WiFi 802.11n, Ethernet via USB, Communication

integrated GPS Internal ≥128GB SSD

Data Storage

Training Requirements

Sampling & Identification

Sample Phase Sample Introduction Solid, liquid, and vapor

Heated Sample Probe (included standard):

- Vapor survey mode via Membrane Introduction Mass Spectrometry (MIMS) Inlet

2 hours basic operation; 8 hours Operator Certification

- Vapor confirmation via Internal Dual-Bed Preconcentrator

Split/splitless injector (included standard) accepts: - Direct liquid sampling (organic solution) via syringe

- Liquid extraction via SPME fiber or PSI-Probe w/ Gerstel Twister™

Solid PSI-Probe™ thermal separation via TAG™ *

Sample Prep Kit (SPK)

- Simplified analysis of solids and liquids

Detects and identifies trace-level explosives, narcotics like Fentanyl and its analogues, A-series and Novichok CWAs, TICs,

environmental pollutants, and other chemicals Standard Reference Database

NIST/EPA/NIH Mass Spectral Library, SWGDRUG Mass Spectral Library, and GriffinLib Mass Spectral Library included, with instant updates available

*optional accessories

AMERICAS

Threats

APAC

EMEA

7055 Troy Hill Dr. Suite 300 Elkridge, MD 21075 USA

10 Kallang Avenue #09-10 Aperia Tower 2 Singapore 335910

Luxemburgstraat 2 2321 Meer Belgium

Sampling & Analysis

Full identification in 4-15 minutes for most chemicals; identification within seconds (near real-time) when operating in Survey Mode

Mass Spectrometer

Mass Analyzer Type

Mass Range / Resolution

Ionization Type / Source

Detector

Vacuum System

Dynamic Range

LTM-GC Column

Detection Limit

Gas Chromatograph

Temperature Range

Linear quadrupole mass filter

15-515 m/z; 0.7 amu @ FWHM

Electron Impact Ionization; non-radioactive ionization source

Electron Multiplier

Self-contained miniature turbomolecular & diaphragm pumps

PPM (parts per million) - PPB (parts per billion). Note: PPT (parts per trillion) for vapor analysis with extended sampling time.

DB-5MS (15 m x .18 mm x .18 um); others available Programmable 40 to 300 °C; ramping of 100 °C/min

Specifications are subject to change without notice. For the most up-to-date specs, go to www.teledyneflir.com





Method Selector Tool



GSS Touch Chemical Identification Result



Trace-level detection of narcotics like Fentanyl and its analogues

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