



PERSON-PORTABLE GC-MS CHEMICAL IDENTIFIER

FLIR GRIFFIN™ G510



The FLIR 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 delivers automated user controls and can be operated while wearing full personal protective equipment 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.

www.flir.com/G510



MASS SPEC PERFORMANCE REDEFINED

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

- Lab, gold-standard linear quadrupole mass analyzer
- Full NIST and SWGDRUG chemical library for field identification and analysis of unknown materials and mixtures
- Simple on-board touchscreen with automated user controls and Method Selector tool
- Visual and audible alarm confirmation with limited data interpretation
- On-board WiFi and GPS assist in maintaining result defensibility



ULTIMATE CHEMICAL DETECTION TOOLBOX

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

- Vapor sampling probe with rapid-response survey mode
- Integrated split/splitless liquid injector accepts direct injection of organic liquids
- Available Prepress Sample Introduction (PSI) Probe with 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 support options available
- Optional vehicle mount kit for variety of on-the-go missions

SPECIFICATIONS

Griffin G510

Technology	Gas Chromatography/Mass Spectrometry (GC/MS)
Dimensions (L x W x H)	13.25 x 13.25 x 15.75 in (33.7 x 33.7 x 40 cm) - includes batteries, carrier gas, and vacuum system
Weight	36 lbs (16.3 kg) - includes batteries, carrier gas, and vacuum system
Optional Vehicle Mount Kit (L x W x H)	- Road-Ready Version: 16.7 x 14 x 15.2 in (G510 installed) - Off-Road Version: 16.7 x 17.5 x 16.2 in (G510 installed)
Operating Temp / Humidity	32 to 104 °F (0 to 40 °C); <95% relative humidity
Storage Temp	-13 to 131 °F (-25 to 55 °C)
Decontamination	Sealed for Survey Mode operation in hot-zone; IP65-rated enclosure is dust-tight and spray-resistant
Power Supply	100-240V 50-60Hz (220 W max); 19V (DC); 2 x #2590 @ 15V Li Ion batteries (included)
Battery Life	4 hrs in Survey Mode, 2 hrs in Confirmation Mode; hot swappable
Start Up Time	15 minutes to full operation from cold
Calibrant	On-board FC-43 (Perfluorotributylamine)
Carrier Gas	On-board helium; external helium connector, automatic switching (Hydrogen capable)

System Interface

Display	9" Multitouch Color Display (1280x720 WVGA; 1300 nits brightness)
Alerts	Audible and visual (touchscreen and handheld probe)
Software	GSS Level 1 Touch; multiple user levels
Communication	2 x USB 2.0, Bluetooth 4.0, WiFi 802.11n, Ethernet via USB, integrated GPS
Data Storage	Internal ≥128GB SSD
Training Requirements	2 hours basic operation; 8 hours Operator Certification

Sampling & Identification

Sample Phase	Solid, liquid, and vapor
Sample Introduction	Heated Sample Probe (included standard): - Vapor survey mode via Membrane Introduction Mass Spectrometry (MIMS) Inlet - 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™ *
Threats	Detects and identifies explosives, narcotics, 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
Sampling & Analysis	Full identification in 4-15 minutes for most chemicals; identification within seconds (near real-time) when operating in Survey Mode

*optional accessories

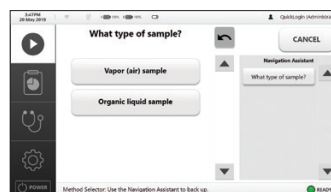
Mass Spectrometer

Mass Analyzer Type	Linear quadrupole mass filter
Mass Range / Resolution	15-515 m/z; 0.7 amu @ FWHM
Ionization Type / Source	Electron Impact Ionization; non-radioactive ionization source
Detector	Electron Multiplier
Vacuum System	Self-contained miniature turbomolecular & diaphragm pumps
Dynamic Range	7 decades
Detection Limit	PPM (parts per million) – PPT (parts per trillion)

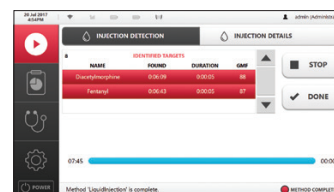
Gas Chromatograph

LTM-GC Column	DB-5MS (15 m x .18 mm x 0.25 µm); others available
Temperature Range	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.flir.com



Method Selector Tool



GSS Touch Chemical Identification Result

HEADQUARTERS
FLIR Systems, Inc.
27700 SW Parkway Ave
Wilsonville, OR 97070

DETECTION SALES, AMERICAS
FLIR Systems, Inc.
1201 S. Joyce Street,
Suite C006
Arlington, VA 22202 US
PH: +1-877-692-2120

DETECTION SALES, APAC
FLIR Detection, Inc.
3 Pickering Street #03-49
Nankin Row
Singapore - 048660
PH: +65-6822-1596

DETECTION SALES, EMEA
FLIR Detection, Inc.
Luxemburgstraat 2
2321 Meer
Belgium
PH: +32 (0) 3665 5106

detection@flir.com

www.flir.com
NASDAQ: FLIR

Equipment described herein is subject to US export regulations and may require a license prior to export. Diversion contrary to US law is prohibited. Imagery for illustration purposes only. Specifications are subject to change without notice. ©2019 FLIR Systems, Inc. All rights reserved. 06/04/19

19-1401-DET-DET-Update G510 Datasheet A4



The World's Sixth Sense®