

GRIFFIN™ G510x

Person-Portable GC-MS Chemical Identifier



The Griffin™ G510x Gas Chromatograph Mass Spectrometer (GC/MS) is a versatile, person-portable chemical identifier specifically optimized for the detection of Narcotics and Explosives. Confirmatory Identification of major and minor chemical constituents in street drugs in under 5 min. It provides near real time confirmation of presumptive techniques used during emergency missions (FTIR, Raman, and HPMS). The integrated Sample injection port allows for environmental, forensic, and hazardous material sampling via the included Sample Prep Kit. The 9" on-board touchscreen displays guided user prompts and can be operated while wearing personal protective equipment (PPE). Long-lasting, on-board batteries ensure every mission is supported from beginning to end.



MASS SPEC PERFORMANCE REDEFINED

GC Separation with MS is the gold standard for forensic substance identification. Confidently identifying unknowns and take action with guided prompts and simple threat alarms

- Griffin and SWGDRUG on-board libraries provide confirmatory analysis of illicit trace or bulk compounds, unknown chemicals, and mixtures
- Visual and audible alarm confirmation with minimal data interpretation
- On-board Wi-Fi and GPS along with a Wi-Fi hotspot allow for real time remote monitoring and control and real time reach back

IDENTIFIES TRACE AMOUNTS AND COMPLEX MIXTURES

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

- High fidelity identification of compounds due to separation of the complex mixtures
- Sample Prep Kit (SPK), used to manage sample introduction and minimize instrument overload
- High fidelity, low thermal mass (LTM) GC column for unsurpassed resolution in challenging environments

CONFIDENT NARCOTICS IDENTIFICATION IN THE FIELD

Completely self-contained and mission-ready from the field to the lab. Optional vehicle mount kit for shock and vibration protection

- Extensive training, service, and reach-back options available
- Data interpretation can be done by the user or any other user of any GC/MS instrumentation, in the field or lab.
- Free quarterly library updates for SWGDrug - Scientific Working Group for the Analysis of Seized Drugs

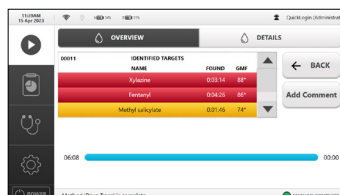
SPECIFICATIONS

Griffin G510x	
Technology	Gas Chromatography/Mass Spectrometry (GC/MS)
Dimensions (L x W x H)	16.00 x 13.5 x 13.5 in (40.6 x 34.3 x 34.3cm) - 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. x 18 x 17 in (with G510x installed) Off-Road Version: 16.7 x 18 x 17 in (with G510x 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)
Power Supply	100-240V 50-60Hz (220 W max); 19V (DC); 2 x #2590 @ 15V Li Ion batteries (included)
Battery Life	4 hrs 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
System Interface	
Display	9" Multitouch Color Display (1280x720 WVGA; 1300 nits brightness)
Alerts	Audible and visual (touchscreen)
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 ≥256GB SSD
Training Requirements	2 hours basic operation; 8 hours Operator Certification
Sampling & Identification	
Sample Phase	Solid, liquid, and vapor
Sample Introduction	- Sample Injection Port (included standard) accepts: - Direct liquid sampling (organic solution) via Merlin Micro shot - Sample Prep Kit (SPK) - *Vapor/Liquid extraction via SPME (Solid Phase Micro Extraction) fiber - *Auto-Sampler accessory.
Threats	Detects and identifies trace-level explosives, narcotics like Fentanyl and its analogues, A-series/Novichok CWAs, TICs, environmental pollutants, and other chemicals
Standard Reference Database	SWGDRUG Mass Spectral Library, and GriffinLib Mass Spectral Library included, with instant updates available. *NIST/EPA/NIH Mass Spectral Library (optional)
Mass Spectrometer	
Mass Analyzer Type	Linear quadrupole mass filter
Mass Range / Resolution	40-515 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) via Syringe, and PPB (part per billion) via SPME
Gas Chromatograph	
LTM-GC Column	RTX-TNT (5 m x .18 mm x .2 um)
Temperature Range	Programmable 40 to 300 °C; ramping of 100 °C/min

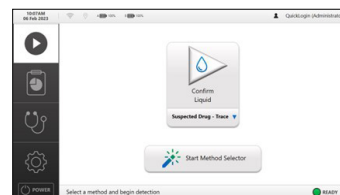
*optional accessories



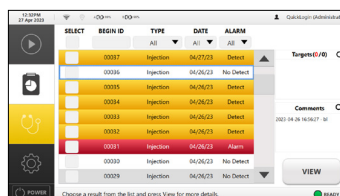
Easier Sample injection with Merlin Micro shot



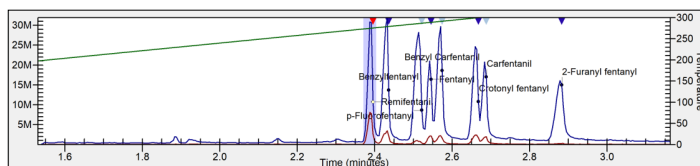
Simplified User Interface with Overview and Detailed information



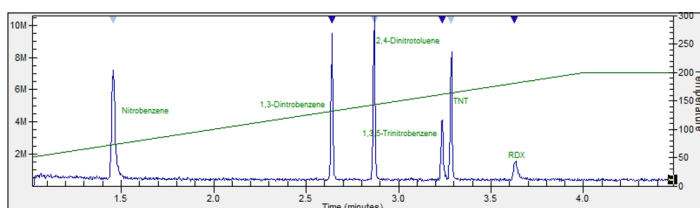
Intuitive GUI



GSS Touch Chemical Identification Result



Trace-level detection of narcotics like Fentanyl and its analogues



Trace-level detection of Explosives

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

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