The FLIR Griffin G465 is the most flexible mobile GC-MS (Gas Chromatograph/Mass Spectrometer) system available for mobile and forward deployed labs, reconnaissance vehicles, and other portable platforms. It is equipped with a rugged, internal shock isolation system that is tested to rigorous MIL-STD-810G standards. The Griffin G465 contains the same standard injection port commonly found on lab-based GC-MS systems and accepts sample injections via PSI-Probe™, syringe, SPME fiber, headspace, and autosampler. It also includes an additional integrated universal sampling port, providing direct air sampling capability, while also accepting plug-and-play samplers like the Griffin X-Sorber and Purge and Trap. The addition of a heated sampling line enables survey mode for near real-time vapor threat identification. The Griffin G465 accurately detects and identifies explosives, drugs, CWAs, TICs, environmental pollutants, and other chemicals. The simplified user interface gives field-operators and scientists quick and accurate answers. The Griffin G465 helps preserve sample integrity, eliminate the expense of shipping unwanted samples, and lead to real-time, actionable countermeasures that protect public safety.

www.flir.com/G465

MOBILE GC-MS WITH REAL-TIME AIR MONITORING

FLIR Griffin G465™

SURVEY MODE FOR RAPID VAPOR THREAT ID
Vehicle-ready GC/MS platform for mission-critical rapid chemical identification

- Membrane-based, near real-time vapor threat detection with integrated heated sampling line
- Internal active vacuum pumping maximizes system uptime and expands range of sampling options
- Integrated shock isolation system minimizes footprint on a vehicle
- MIL-STD-810G compliant for shock, vibration, temperature, and humidity
- Optional vehicle mounting kit simplifies installation for operation in a moving vehicle

MULTI-MISSION SAMPLING
Integrated inlets and interchangeable sampling tools provide in-field flexibility and long-term value

- Flexible sampling options accommodate solid, liquid, and vapor samples
- Same split/splitless injector found on typical lab-based GC-MS systems and accepts PSI-Probe™, direct syringe, autosampler, SPME, and headspace injections
- Built-in air sampling module provides 24/7 continuous air monitoring capability while providing a docking station for portable plug-and-play water and vapor samplers
- Versatile, quick-connect sampling tools extend the mission to remote locations and eliminate sample prep at the site of action

CONFIDENT, ACTIONABLE CHEMICAL IDENTIFICATION
Industry-leading chemical searching techniques present a single identification result

- Easy-to-use wizard tool guides user through method selection
- Go/no-go alarms eliminate data interpretation
- Chemical ID in five to fifteen minutes
- Access to detailed chromatograph and mass spectral data
- Ability to create mission-specific methods and chemical libraries
- Operator training completed in one day
**Griffin G465 Technology**
GC/MS; fully integrated low thermal mass gas chromatograph (LTM-GC) and MS/MS-capable ion trap mass analyzer.

**Mass Range / Scan Rate**
35-425 m/z; up to 10,000 m/z per second @ 20 points per m/z

**Ionization Type**
Internal electron ionization (EI)

**Detector**
Conversion dynode electron multiplier

**LTM-GC Column**
Standard VB-5MS (15M x .18mm x .18μm); others available; programmable 40 to 300 °C

**Calibrant**
On-board FC-43 (Perfluorotributylamine)

**Carrier Gas**
Connection for external gas source (choice of He or H₂); gas available from many vendors; H₂ generator available

**Sampling & Analysis**

**Sample Introduction**
- Split/splitless injector accepts:
  - Direct syringe injection (1 syringe included)
  - SPME fiber (optional)
  - Manual headspace sampler (optional)
  - Autosampler (optional)
  - PSI-Probe® thermal separation via TAG™ (optional)
  - PSI-Probe thermal separation via GERSTEL-Twister® (optional)

Universal Sampling Port with standard Tenax TA and Carboxen 1017 dual bed preconcentration tubes accepts:
- Direct air intake onto precon tubes (adaptor included)
- Griffin Purge and Trap for water analysis (optional)
- Griffin X-Sorber handheld vapor sampler (optional)

Membrane Introduction Mass Spectrometry (MIMS) Inlet:
- Direct air intake for near real-time air monitoring capability

**Sample Phase**
Solid, liquid, and vapor

**Threats**
Detects and identifies explosives, narcotics, CWAs, TICs, environmental pollutants, and other chemicals

**Sampling & Analysis**
Full identification in 5-15 minutes for most chemicals; near real-time in survey mode

**System Interface**

**Display & Alerts**
Full automation by connection with computer

**Communication**
Ethernet connection TCP/IP; remote operation and diagnostics

**Data Storage**
Data automatically stored on supplied laptop (500 gb)

**Simplified User Interface**
Griffin System Software (GSS); GriffinLib, NIST, and AMDIS mass spectral libraries included; capable of user-defined library

**Training Requirements**
1-2 days depending on level of training desired; Operator, Developer, and Full System certifications available

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**Power**

**Input Voltage**
100–240 VAC; 24 VDC (+/- 5%, 25 A, 1000 W)

**Cold Start Time**
<30 mins (includes automatic tuning/calibration)

**Environmental**

**Operating Temp / Humidity**
41 to 184 °F (5 to 40 °C); <85% relative humidity

**Storage Temp**
-13 to 131 °F (-25 to 55 °C)

**Physical Features**

**Dimensions (L x W x H)**
19.2 x 19.2 x 21.1 in (48.8 x 48.8 x 53.6 cm)

**Weight**
99.5 lbs (45.0 kg)

Rugged, internal shock mounting system; integrated vacuum system contains mini turbomolecular pump and quad diaphragm; no external shock table or vacuum system required

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

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