

## Mobile Microspec

*Simple when you want it. Smart when you need it.*



BTT's revolutionary Microspec was the world's first handheld radiation spectroscopy system. Now, this proven technology has been engineered for mobile early warning and emergency response applications. Built for use on ground and aerial vehicles, the Mobile Microspec delivers the most accurate dose information, isotope identification, and radiation mapping capabilities in a portable, rugged unit. Originally developed for the military, the Mobile Microspec is simple to use in the field, but provides the advanced data needed by experts to make the right decisions at the right time.

- Supports two probes simultaneously for extended gamma sensitivity range or monitoring of two radiation types
- Uses BTT's advanced spectroscopic probes (gamma, neutron with gamma suppression, X-ray, and beta with gamma suppression)
- Provides isotope-specific dose and dose rate, detailed spectroscopic data, and real-time dose rate mapping via on-board GPS
- Comprehensive, user-accessible isotope library with automatic peak search and isotope identification
- Ideal for both ground and airborne platforms
- Airborne measurements projected to 1 meter above-ground doses for personnel hazard assessment
- Splash and dust resistant (MIL810E)
- EMI certified (MIL461E)
- Remote operation by wireless link (optional)

# MOBILE MICROSPEC™

## Technical Specifications

(Visit [www.bubbletech.ca](http://www.bubbletech.ca) for more information)

### PHYSICAL SIZE

Analyzer: 33.0 x 23.0 x 16.2 cm (13.0 x 9.1 x 6.4 in)  
4.1 kg (9.0 lb)

Probe: 1.5 to 4.0 kg (3.3 to 8.8 lb)  
(Varies with probe type)

### POWER

Type: Built-in rechargeable NiMH battery  
or external 12-32 V power supply  
(selectable)

Runtime: >12 hours, fully charged

Charger: 110 - 240 V, 50/60 Hz autosensing

### TEMPERATURE

Operating: -20 °C to +40 °C

Storage: -40 °C to +70 °C

### CASE

Type: High performance transport case with  
custom-cut protective foam liner

### SPECTROSCOPIC PROBES\*

Gamma: NaI (various sizes)  
50 keV to 8 MeV

X-ray: NaI with Be window  
5 keV to 200 keV

Beta: Phoswich scintillator  
100 keV to 3 MeV

Neutron: Liquid scintillator and <sup>3</sup>He counter  
Thermal to 20 MeV

\*Additional data sheets available for probes

### OPTIONS

- Ruggedized laptop for operation of the system in harsh environments
- Laser altimeter for accurate height-above-ground information in airborne applications
- RS232-based transceiver system for remote control and data acquisition

### OPERATING MODES

#### Dosimetry:

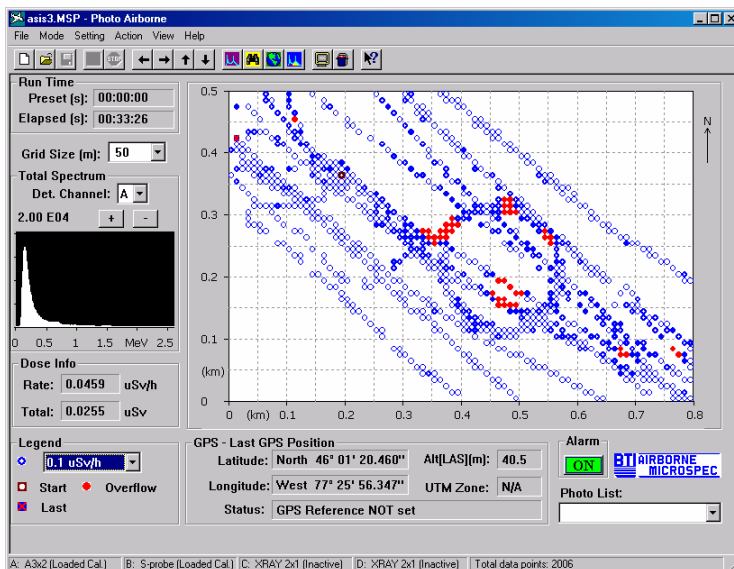
- Dose rate and cumulative dose in both mrem and  $\mu$ Sv units
- H\*(10), H'(0.07,0°), H'(3,0°) dose conventions
- Region-of-interest specific dose
- Two level audio/visual alarms

#### Spectroscopy:

- Automatic peak search and isotope identification
- 1 second spectrum update
- Dose and dose rate information
- Region-of-interest dose

#### Mapping:

- On-board GPS
- Full spectrum available at each measurement point
- Scalable grids for map display
- Spectral region-of-interest mapping



**Mobile Microspec in mapping mode:** Data obtained during National Emergency Response exercises conducted at Atomic Energy of Canada Ltd. (2003). Areas in red indicate locations of radioactive sources. System provides dose and dose rate, automatically identifies source type, provides full energy spectrum at each data point, and maps measurement locations using on-board GPS.

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