



GAS IMAGING TECHNOLOGY, LLC

# Sherlock<sup>®</sup> Scientific



## Infrared Imaging Spectrometer

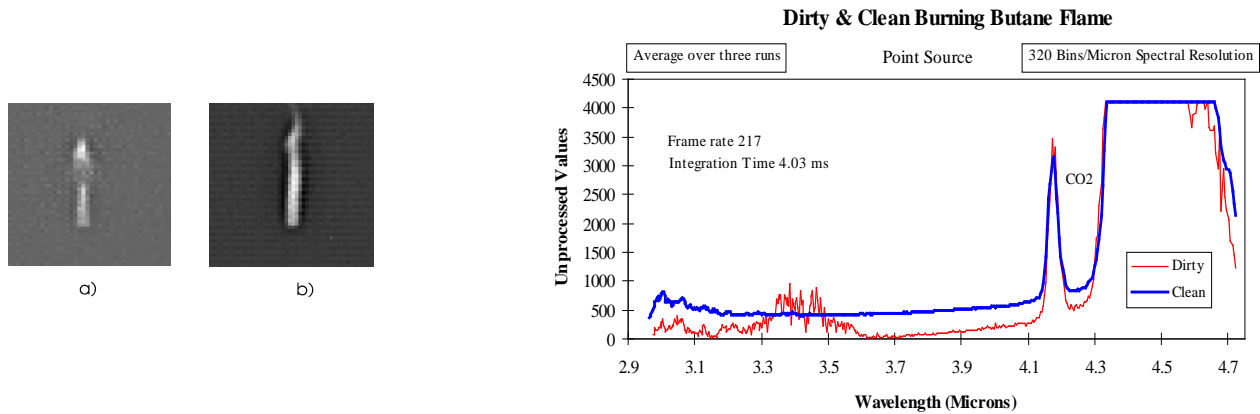


The Sherlock Scientific is an imaging spectrometer for research professionals interested in understanding the infrared spectrum of hot gases and other species. Quantification and analysis are performed using the supplied HyPAT windows based software tools.

The Sherlock Scientific can be used in applications where absorption, emission and reflected signatures are of interest. As an example, the remote combustion analysis of flames and flares, concentration and speciation of hot gas clouds, and spectral analysis of various targets.

The Sherlock Scientific is an instrument containing an infrared camera, diffractive optics that disperses the light, an embedded computer and frame grabber allowing easy integration into any laboratory. It can be operated by a battery for operation in remote locations or using standard ac supply for operation in a laboratory.

Sherlock is based on patented IMSS spectral imaging<sup>1</sup> technology that has been proven for several Department of Defense related applications. Now, this technology is available to the commercial market and has been developed for several applications related to gas imaging, analysis and quantification.



Example of the infrared image and spectral signature of a flame that is burning clean a) on the left and dirty b) on the right.

<sup>1</sup> U. S. Patent numbers: 5,479,258; 5,867,264; 6,680,778

### Gas Imaging Technology

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# Specifications

## Sherlock Mechanical Characteristics

Weight	15 pounds without battery 19 pounds with battery
Size	12(L) x 7(W) x 8(H) inches
Power	12 volt battery or AC

## Sherlock Optical Characteristics

Spectral Range	3 to 5 microns
F number	f/2.5 at 3 microns
Focal Length	75 mm at 3 microns
Instantaneous Field of View	0.4 mrad
Field of View	7.3° x 5.5°
Spatial Resolution	320 x 240 pixels

## Basic Sherlock Includes

1. Embedded software
2. Electrical Interfaces - Ethernet, RS232, NTSC, S-Video, USB
3. User Interface - Push button allowing one hand operation
4. Small LCD Video Display (640 x 480 pixel display)
5. Sun Shield
6. Embedded Digital Video Clip Recording
7. Standard 12 volt battery
8. Battery Charger/AC supply
9. Shipping Pelican Case
10. All Necessary Cables
11. HyPAT software for post processing and gas quantification
12. Two day training at manufacturer's facility

## Accessories

1. Tripod ¼-20 Threaded Mount
2. Easy Rig pneumatic harness for easy caring when using in the field for many hours
3. Extra Batteries
4. Dual Battery Charger
5. Small Portable VCR

*Specifications can change without notice*

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