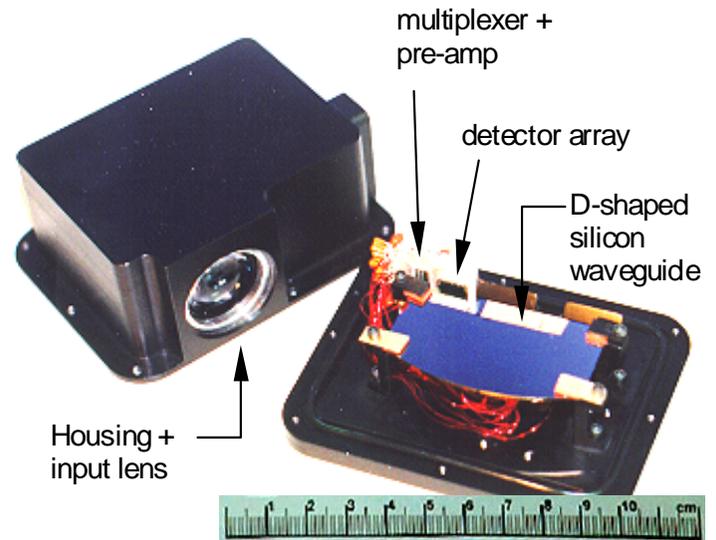


Date Revised: 16 JAN 04

VENDOR DESCRIPTION

Ion Optics has developed a low-cost, rugged, all solid-state infrared microspectrograph (called **MicroSpec™**) for a variety of gas and chemical sensing applications. It is particularly useful when multiple gases are to be measured or multiple interferences are present.

This patented, innovative instrument is compact (~ 2" x 3" x 1"), lightweight, robust, low-power, alignment-free, and manufactured entirely of micromachined silicon. It is operated by a laptop or palmtop computer, but can easily be modified for operation by an embedded digital signal processor. The instrument is designed to operate in the 3-5 μm atmospheric transmission band with a resolution of 0.035 μm . Other operating wavelength ranges (e.g., 1-2 μm , 7-14 μm) are readily achieved by altering the line spacing of the built-in grating. The detector array is a 64-channel uncooled microbolometer array.



Product Manager Robotic & Unmanned Sensors

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Business Category: Small Business

MS

Hardware	
Power: 0.2 watts	Operating Speed: 0 knots to 400 knots
Weight: 0.3 lbs	Operating Temp.: -10°C to 50°C
Dimensions: 50 mm x 75 mm x 35 mm	Storage Temp.: -30°C to 80°C
Internal Volume: 0.1 ft ³	Interface: Dsub 15-pin connector; 0-5 VDC
	Bandwidth Required: TBD
	MTBSA: TBD
	MTTR: TBD
Operating Altitude: 0 ft to 30,000 ft AGL	Maintainability: 2-level BIT to LRM level

Performance	
Swath Width: 3 m x 50 m @ 500 m AGL	
Sensor Type: Infrared spectrograph	
On Board Storage Capacity for Continuous Collection for 0 hours	