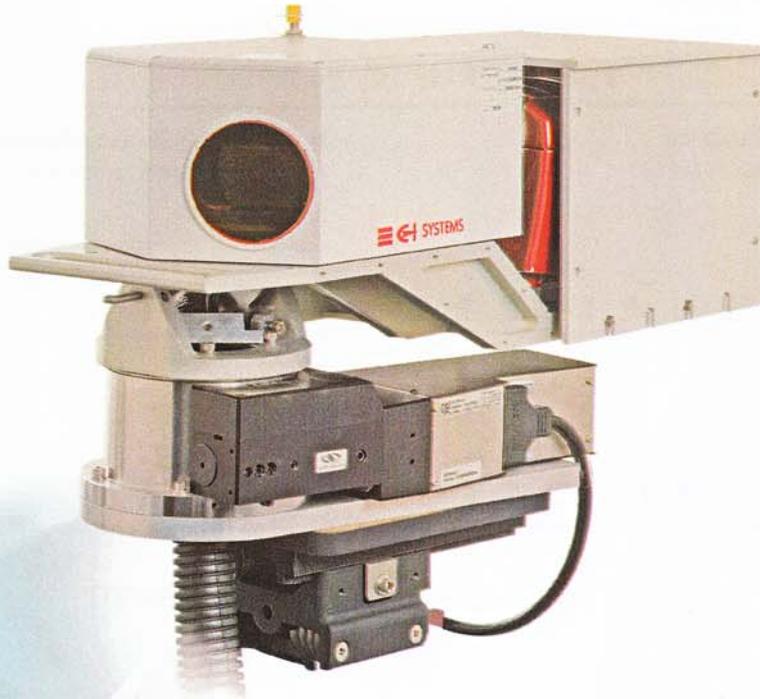


SI-5000

SPECTRAL IMAGER FOR MWIR SPECTRAL RANGE



The SI 5000 addresses a wide variety of scientific, military and industrial applications that require recognition and mapping of chemical materials in a region of space from a distance. Being based on a pushbroom optical configuration it may scan a section of the horizon in a ground based set-up or a strip of earth surface in an airborne set-up.

TYPICAL APPLICATIONS

Ground:

- ▶ IR Emissivity mapping of surfaces, buildings, walls, camouflage materials
- ▶ Development of camouflage materials and paints emissivity
- ▶ Temperature mapping of surfaces
- ▶ Gas leaks detection and identification
- ▶ Gas cloud mapping in the air over smokestacks
- ▶ Gas leaks detection and identification in industrial and petrochemical plants
- ▶ Aircraft engines plume mapping of temperature and gas contents
- ▶ Missile engines plume mapping of temperature and gas contents
- ▶ Mapping of vehicle exhaust in urban areas

Airborne:

- ▶ Gas emission mapping over industrial areas
- ▶ Gas leak detection and identification over natural gas pipelines
- ▶ IR emissivity mapping of military targets in nadir configuration
- ▶ Water content mapping on agricultural ground
- ▶ Salinity mapping on agricultural ground



SI-5000

SPECTRAL IMAGER FOR 3-5 μ SPECTRAL RANGE

A D V A N T A G E S

- ▶ No need of cooling the optics
- ▶ Compact and inexpensive system
- ▶ Usable in the laboratory, field or airborne
- ▶ High reliability
- ▶ Easy to use with user friendly interface

F E A T U R E S

- ▶ Calibrated in units of Spectral Radiance
- ▶ Spectral images in ENVI compatible format
- ▶ Convenient file management system
- ▶ Field packaged for easy and reliable transportation

S I G N A L P R O C E S S I N G

- ▶ By ENVI program (provided)

S P E C I F I C A T I O N S

Spectral range:	3-5 μ
Number of pixels:	240x(user-pre-established number)
Field Of View (vertical):	6.90 ⁰
Field Of View (horizontal):	up to 300 ⁰
Instantaneous Field of View:	0.5mrad
Spectral resolution:	50 cm ⁻¹
Noise Equivalent Spectral Radiance:	2.5 x 10 ⁻⁹ Watt/(cm ² .sr.cm ⁻¹), at 4.8 microns and uniform blackbody source at 25C over the field of view
Data acquisition time for 9.1x6.90 FOV:	~5 seconds
Working environment temperature:	-10 to 40 C non condensing
Weight of optical head:	16.8 Kg
Weight of optical head, mounted on scanning stage:	28.2 Kg
Size of optical head:	20x20x60 cm.

 **SYSTEMS**
www.ci-systems.com

Polytec GmbH

Polytec-Platz 1-7 · 76337 Waldbronn · Germany
Telefon (0 72 43) 604-0 · Telefax (0 72 43) 6 99 44

E-Mail info@polytec.de
www.polytec.de · www.polytec.com



Specifications are subject to change without prior notice