

## **MICROPROBE OPTICS**

### **MODEL MSO-3X**



### **APPLICATIONS**

- **ELECTRONIC BOARD INSPECTION**
- **GEOCHRONOLOGY**
- **MICRO-THERMOMETRY**
- **MICROIMAGING**
- **FLUORESCENCE ANALYSIS**
- **MATERIAL ANALYSIS**
- **SPECTRAL ANALYSIS**

The **MICRO-PROBE OPTICS MODEL MSO-3X** is one of a family of multi spectral optical collecting systems, which can be used to collect energy for the measurement of point sources and images from the ultraviolet to the far infrared (.2-20 microns). The optical assembly can be supplied with multiple imaging planes to accommodate measurement using different sensors simultaneously. The optical assembly is modular, so that it can be configured to meet different applications.

The **MICRO-PROBE OPTICS MODEL MSO-3X** in its basic configuration is all reflective, and is diffraction limited at 200 nm with a 5-micron spot on axis. The unique nature of the optics is its large field of view, long working distance, fast F/number, interfacing with outside sensors through all standard interfaces.

**ADVANCED PHOTONICS INTERNATIONAL, INC.**

The **MICRO-PROBE OPTICS MODEL MSO-3X** offers high-resolution imagery with a full set of interfaces to cover most applications. The Optical assembly is mounted in a rugged housing with easy access to focal planes.

**SPECIFICATIONS**

<b>SPOT SIZE</b>	4 mm
<b>WORKING DISTANCE</b>	254mm
<b>BACK FOCAL DISTANCE</b>	158.75mm
<b>RESOLUTION</b>	5 MICRONS AT .2 MICRONS
<b>F/NUMBER</b>	3
<b>SPECTRAL COVERAGE</b>	.2-20 MICRONS
<b>IMAGE SIZE</b>	12mm
<b>COATING</b>	AL WITH SIO OVERCOAT

The **MICRO-PROBE OPTICS MODEL MSO-3X** offers several different optional modules to accommodate different measurement requirements. The optics can be supplied with the following options:

- 1. Beam splitters
- 2. CCD camera interfaces
- 3. Detector interfaces
- 4. Laser interfaces
- 5. Spectrometer interfaces

**OPTIONAL OPTICAL ACCESSORIES**

<b>P/N</b>	<b>FUNCTION</b>
<b>BS-1</b>	.2-20 microns
<b>BS-2</b>	2 IMAGE PLANES 1. .2-1 MICRON 2. 1-14 MICRONS
<b>BS-2</b>	COMBINING OF EXTERNAL 10.6 LASER
<b>CCD-1</b>	COMBINING OF CCD CAMERA NFOV
<b>CCD-2</b>	COMBINING OF ZOOM LENS
<b>CCD-3</b>	COMBINING OF CCD CAMERA WFOV
<b>SP-1</b>	TRANSFER TO SPECTROMETER

**API** offers modular detectors and spectral discrimination assemblies to match the desired spectral region and application.

**DETECTORS**

<b>P/N</b>	<b>TYPE</b>	<b>SPECTRAL COVERAGE</b>
<b>D-1</b>	INSB	3-5 micron
<b>D-2</b>	HGCDTE	3-5,8-14 micron
<b>D-3</b>	HGCDTE ARRAY	8-14 microns
<b>D-4</b>	PLATINUM SILISIDE ARRAY	1-5 microns
<b>D-5</b>	PROELECTRIC-ARRAY	1-14 microns
<b>D-6</b>	CCD ARRAY	.2-1 microns

**API** can offer complete instrument solutions (see our brochure **MICRO-PROBE MODEL MSP-200** which offers standard configurations to meet specific applications.)

**API** can offer additional optical microprobes on request. The instrument can also be supplied with the appropriate scanning assembly

Please contact our engineering staff for assistance in solving your measurement problems.

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