

# DUV-250

DEEP-UV MICROSCOPE, **0.1  $\mu\text{m}$**  resolving power.  
Viewing Sub-Micron in ***REAL TIME***.



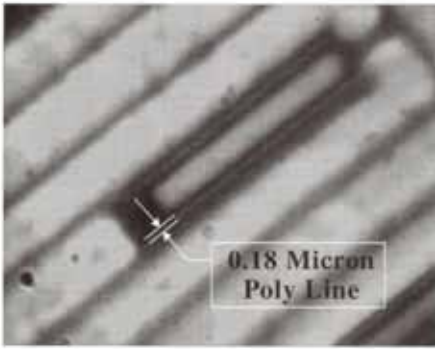
- NO computer enhancement. Non-destructive
  - NO sample preparation necessary.
  - NO high-cost UV Laser required.
    - Unique 240-270nm Mercury Arc Lamp.
    - 25,000 X magnification.



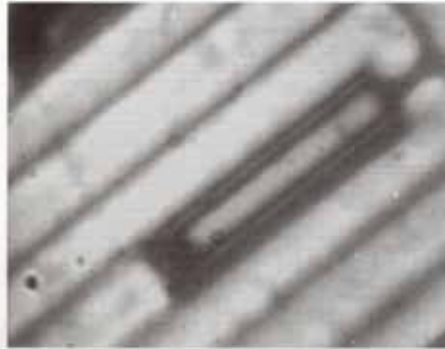
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Sub-micron features resolved as intended.



1 open on 0.180 Micron Poly line.



Multiple opens on 0.180 Micron Poly line.

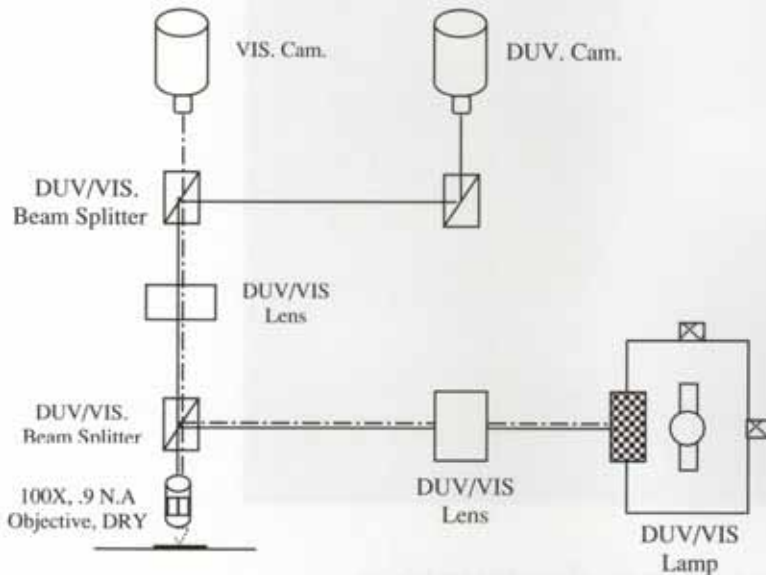
The DUV-250 Microscope incorporates deep ultraviolet, optics, illumination, and imaging technology that makes possible the visualization of critical sub-micron features in both leading edge and future generation integrated circuits.

The high magnification of this unique microscope creates a simple and quick way to check sub-micron semiconductor processing at critical steps without any sample preparation. The DUV-250 microscope provides quick, easy, and meaningful visualization of the sub-micron world. The DUV-250 microscope fills a gap between visible light microscopy and scanning electron microscopy. Critical sub-micron level electron beam generated photomasks, such as OPC feature, can be inspected after resist development for sub-micron feature compliance prior to etch. Magnetic Head manufacturer could also benefit by the high power DUV-250 to review Pole Tips in real time.

The DUV-250 Microscope Operating at 25,000x magnification produces useful images of .18 microns and below. Pictures above show two polysilicon conductors .18 microns in width. The sub micron image of the poly lines is seen through a passivation layer of silicon dioxide.

### Specifications:

<b>Objectives:</b>	10X, .25 N.A. 40X, .50 N.A. 100X, .90 N.A. All DUV class
<b>Wave Length:</b>	DUV: 240-270 nm VIS: 400-700 nm
<b>Magnification:</b>	DUV 25,000 X, VIS 5,000 X
<b>Optical Resolution:</b>	0.1 Micron
<b>Stage:</b>	8" x 8", with Joystick controller.
<b>Nose piece:</b>	Motorized quintuple nosepiece
<b>Sample holder :</b>	8" Wafer holder
<b>Dual TV Port:</b>	DUV CCD and VIS CCD
<b>connected to:</b>	14" Color Mon. for VIS Image and: 14" B/W Mon. for DUV Image
<b>Vibration Isolation:</b>	Anti-vibration platform included.



### Options:

1. Cooled 1.3 Mega pixel CCD Camera with computer control image enhancement
2. Computer control X-Y- Z stage
3. Video Printer
4. Transmitted light for photomask with Photomas Holder

