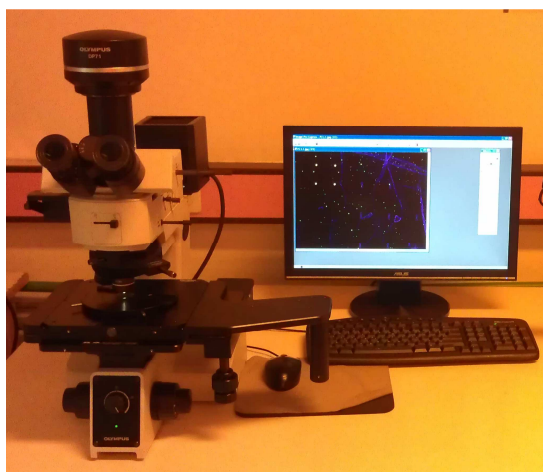


## OPTICAL MICROSCOPE



**MODEL:** OLYMPUS MX51-F

**INSTALLATION PLACE:** Cleanroom of “Nanotechnology and Microsystems Laboratory”, Department of Microelectronics

**DESCRIPTION:**

Industrial inspection Microscope for the inspection requirements of a variety of electronic components, wafers and large samples.

### SPECIFICATIONS

1. Optical system: UIS2 optical system (Universal Infinity-corrected System)
2. Microscope Stand-Focusing Mechanism: 2-guide rack and pinion method. Coarse and fine coaxial Z-axis control stroke 32mm (2mm upper and 30mm below from the focal plane). The same stroke 15mm (combination with transmitted illumination). Stroke per rotation of fine Z-axis control 0.1mm (1 $\mu$ m per scale). Coarse handle torque adjustment. Coarse handle upper limit lever.
3. Illumination System: BX-RLA2 Brightfield/Darkfield reflected light illuminator.
  - Contrast changeover method: BF-DF slide switch
  - Applicable observation mode: a) Brightfield, b) Darkfield, c) Nomarski DIC (Differential Interference Contrast, U-DICRHC interference slider, d) Polarized Light
4. Lamphousing: 12V, 100W Halogen, Lamphouse: U-LH100L-3(power supply is integrated)
5. Filters: U-25LBD(Color Temperature Conversion Filter) turns the illumination light into daylight. Used in general observations and color photography. U-P03: Polarizer slider for reflected light and U-AN360-3: Rotatable analyzer
6. Observation Tube/Eyepiece/Objective Lenses: a)Tube:U-TR30-2 Widefield trinocular, b)Eyepieces: WHN10X-H/22 and WHN10X/22, b) 3 Objective Lenses: 10x, 50x, 100x Magnification LMplanFLN series
7. Revolving Nosepiece: U-D6BDRE
8. Stage and Holder System: a) Stage: MX-SIC6R2 Coaxial right-hand control 6" x 6" stage, b) Holder: BH3-WHP6 rotary wafer holder plate.
9. Dimensions/Weight: Dimensions: Approx. 430(W) x 591(D) x 495(H) mm Weight: Approx. 26 kg (Stand Approx. 11kg)
10. Camera: DP71 Microscope Digital Camera

### APPLICATIONS

UIS2 optics deliver excellent detection of even tiny defects (especially at Darkfield) and a Resolution of 0.42 $\mu$ m with Depth of Focus=0.87 $\mu$ m at 0.22mm field of view. The standard illuminator (BX-RLA2) complies with near IR observation, as well as offering brightfield, darkfield, Nomarski DIC and simple polarizing observations. Especially U-DICRHC interference prism enables high contrast 3D looking observation and also allows even small phase variation to be observed.

### CERTIFICATION/ACCREDITATION

The facility is not certified or accredited.

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