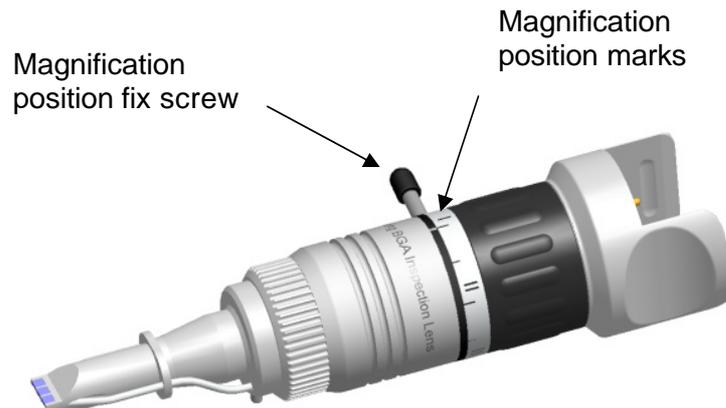


How to calibrate magnifications of BGA lens in OptiPix using “Calibration micrometer scale”

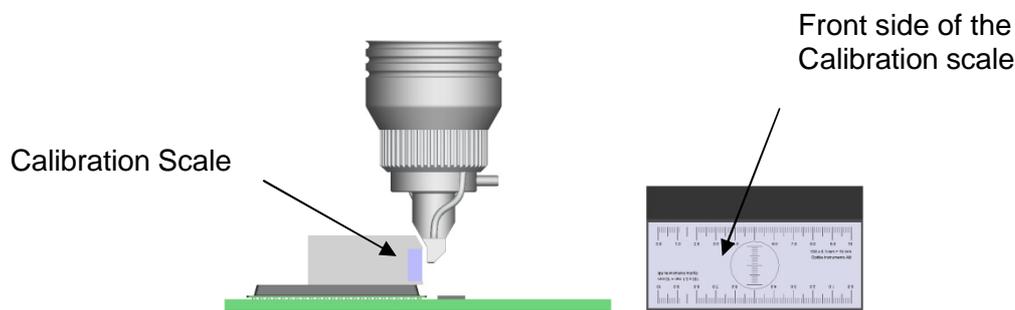
1. Description

Zoom ring of BGA lens is marked by Greek numbers I, II, III and IV. These positions indicate different optical magnification of the lens and can be calibrated in OptiPix software to perform dimensional measurements.



2. How to calibrate magnifications in OptiPix

- a. Define 4 magnifications in OptiPix. (refer to instructions manual of OptiPix for how to define magnifications).
- b. Put the Calibration micrometer scale on top of the BGA component (top of the die). Fix position of the Zoom ring to the first magnification and move the calibration scale forward/backward and/or sideways until you achieve a sharp picture of the printed scales on the glass substrate. If available, use of XY-table is preferred.
- c. Calibrate this magnification and do same procedure for other magnifications.



Note:

Accuracy of the calibration (and dimensional measurements) is higher at high optical magnifications. Performing dimensional measurements is not recommended at low optical magnifications due to large depth of focus and image distortion of BGA lenses at low magnification.