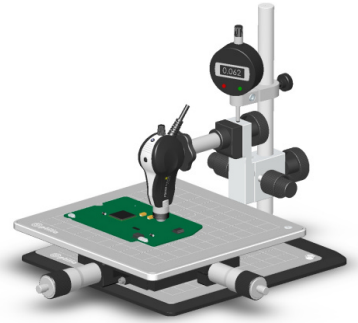


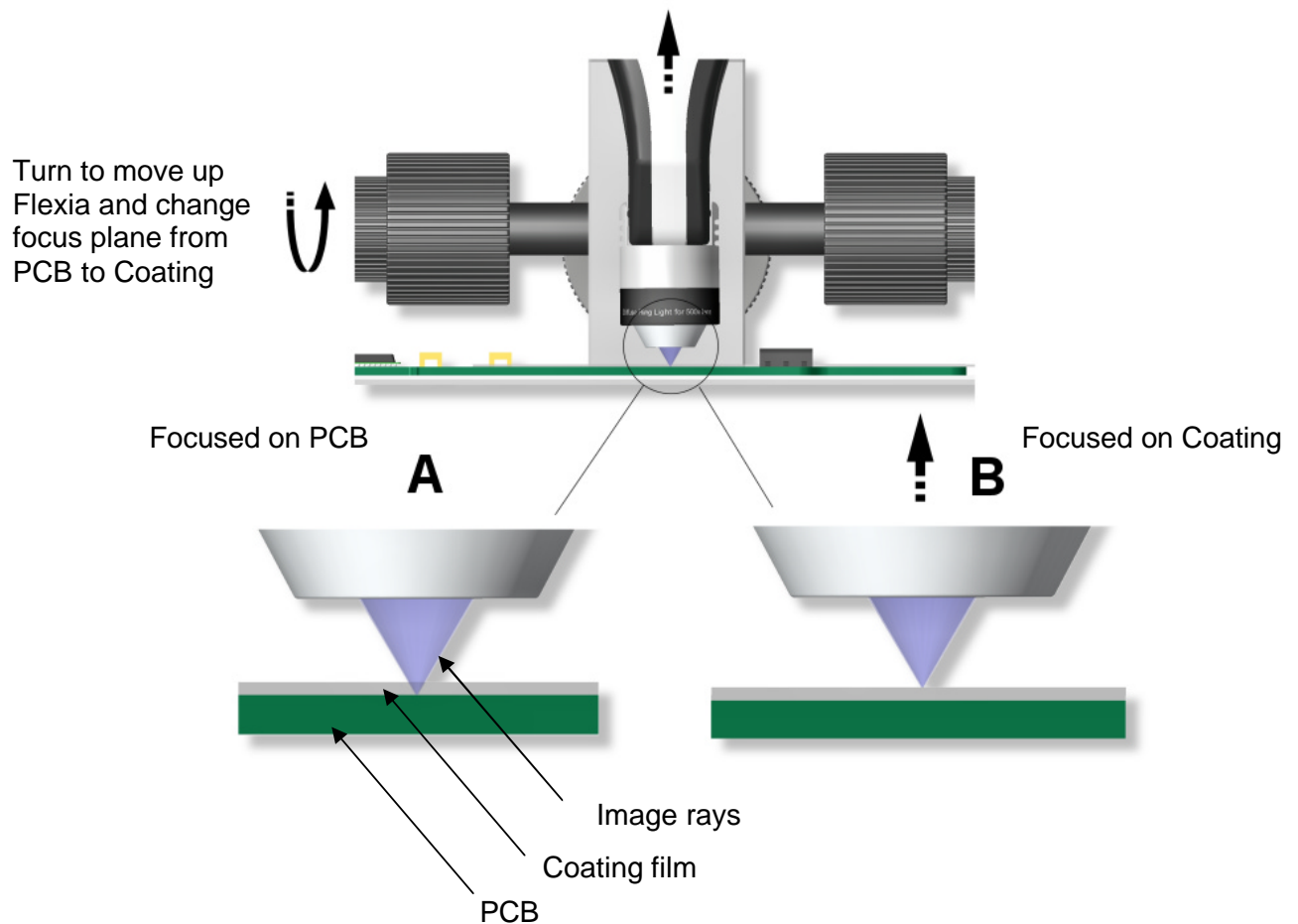
Quick instructions manual for:

## Measurement of Conformal Coating thickness



1. Setup Flexia Definition XYZ measurement with Flexia HM, 500x lens, diffuse RingLight and Digital Height Indicator.
2. Using a marker, put a small mark on the PCB, where you want to measure thickness of the coating.
3. Turn on Flexia, start OptiPix and align edge of the mark to be in the middle of the picture.
4. Set camera illumination to maximum and adjust camera properties to achieve a bright and sharp picture of the PCB.
5. Fine focus on surface of the PCB according to **A**, below picture.
6. Zero the indicator gently. Move up Flexia slightly to achieve best focus on the surface of the Coating according to **B**, below picture.
7. Read the indicator value. Thickness of the coating is the value multiplied by refractive index of the coating.

For example If refractive index of the protection coating is  $n= 1.5$  (which is true for most polymers) and thickness of the coating is measured 80 microns by indicator the coating thickness is  $1.5 \times 80 = 120$  microns.



*Note: Optical Path of the image rays in other materials than air (vacuum) is  $L(n)=L(\text{air}) \times n$ , there "L" is thickness and "n" is refractive index of the material. This means actual thickness of the protective paint on PCBs is "n" times the height measured by the indicator in Flexia XYZ.*