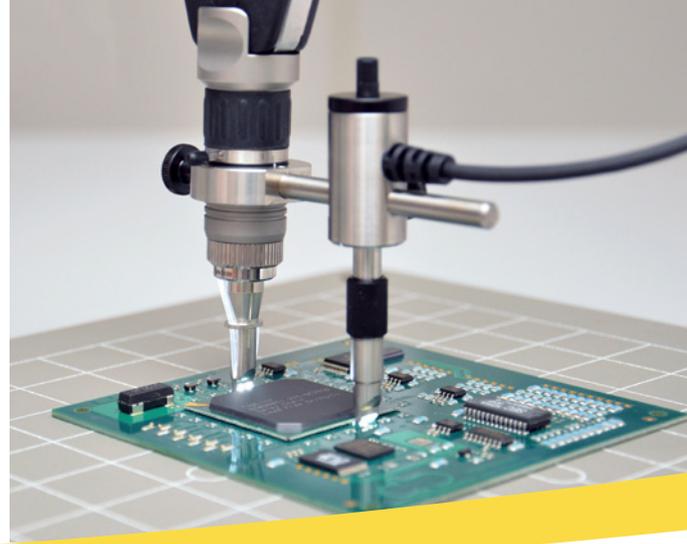


# BGA Inspection Lenses

Ultra Small Size 90° side-view Probe

Small Size 90° side-view Probe

Standard 90° side-view Probe



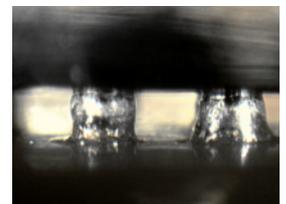
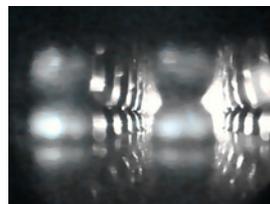
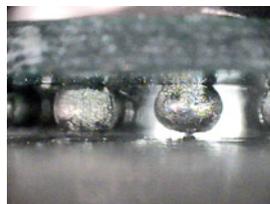
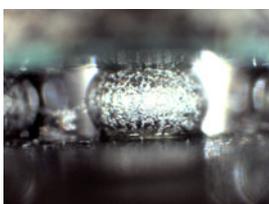
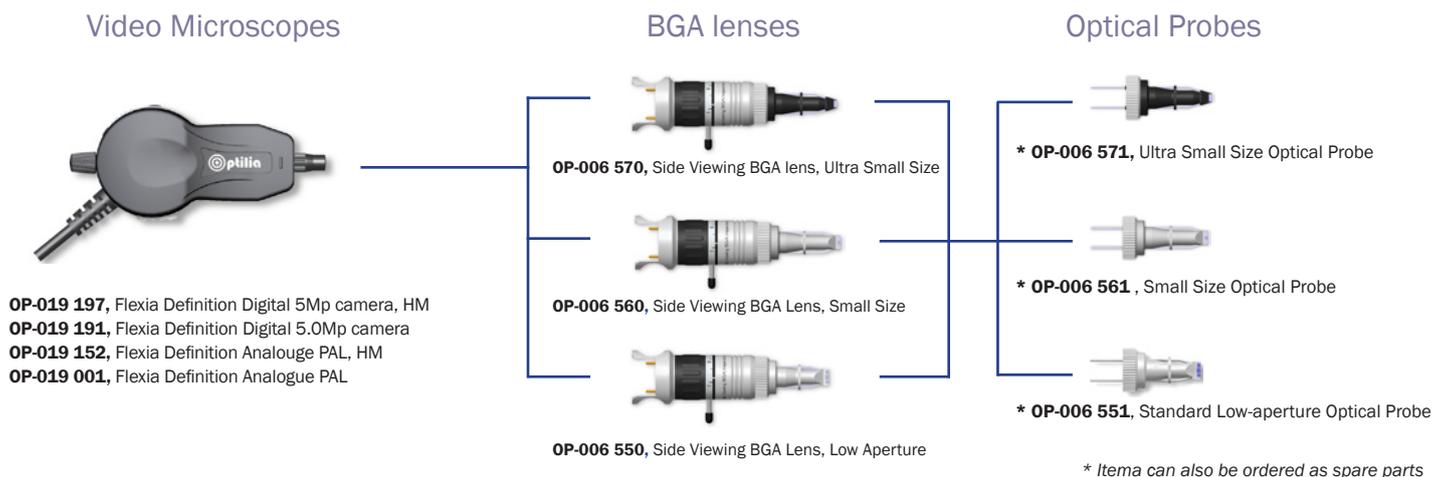
State of the art BGA Lenses with a range of Side-view Probes for reliable Visual Inspection of solder joints of BGA, uBGA, CSP and Flip-Chip packages with stand-off down to 0.04 mm (40 microns). The interchangeable Optical Probes are key elements in the Optilia BGA Inspection system and are easily attached to Flexia 5.0 mega pixel Digital Video Inspection Microscopes.

The meticulous design of the Optilia BGA Inspection Systems provides great flexibility from the combination of the BGA Lens, which gives the highest image quality and the ultra slim design of the Optilia Optical Probes that allows solder bump inspection of very dense PCB designs. Ultra Small Size BGA probe needs only 0.8mm free space to produce a bright image of the solder bumps underneath BGA uBGA or CSP packages.

All Optilia BGA lenses incorporate integral high-intensity and long-life LEDs with electronic shutter control, delivering optimum white illumination via the probes' integral light guides without the need of an external light source. Magnification of the lenses can be changed from approximately 5x (~50 mm working distance) to 350x (~0.3 mm working distance).

Optilia BGA lenses and Optical Probes are constructed using ESD-protected metallic housing and precision optics with mechanical shock protection.

## Product matrix:



Empowering your Vision!

# Technical specification:

BGA Optical Probes	Low Aperture	Small Size	Ultra Small Size
Magnification*	~ 280x – 5x	~ 350x – 25x	~ 350x – 25x
Focusing range	~ 0.5 – 100 mm	~ 0.3 – 40 mm	~ 0.2 – 40 mm
Field of View	~ 1.2 – 50 mm	~ 1.0 – 20 mm	~ 1.0 – 20 mm
Required free Working Area**	~ 1.2 - 2.2 mm	~ 1.0 - 1.5 mm	~ 0.6 - 0.8 mm
Thickness of optical probe	2.2 mm	1.5 mm	0.8 mm
Width of optical probe	7.1 mm	6.0 mm	3.4 mm
Foot print of optical probe	0.8x7.1 mm	0.8x6.0 mm	0.4x3.4 mm
Weight	10 gr	10 gr	10 gr

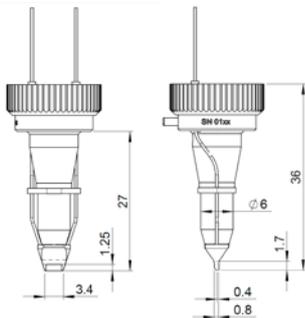
\* Attached to Flexia Definition HM

\*\* Minimum required free area depends on surrounding component heights

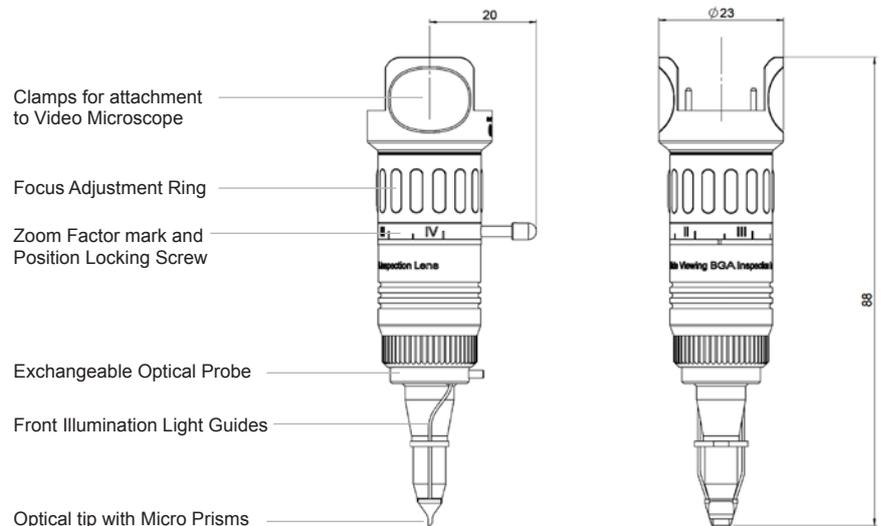
BGA Lenses	
Incident Front Illumination	Built-in long life twin LEDs via micro prisms. Cool white.
Attachable Transmitted Background Illumination	Attachable long life power LED via micro prism. Cool white.
Stand-alone Transmitted Background Illumination	Brush-light long life power LED via optical fibers. Cool white.
Light intensity control system	Individually adjustable front and back light with electronic dimmer.
Power source	- Front light via Camera (USB2.0 bus of host computer). - Back lights via external power supply. - Brush light via battery or external power supply.
Size and Weight	165x50x36 mm (LxHxW), 200 g maximum.

Digital Video Microscope	
Image Sensor	Colour 5.0Mpixel CMOS (2592x1944) USB2.0 interface.
Storage environment	-10° to +60° C, Max 98% RH, non-condensing.
Operating environment	0° to +45° C, Max 95% RH, non-condensing.

## Dimensions:



Ultra Small Size Optical Probe



BGA Inspection lens

Dimensions are in mm

Reseller:



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 Email: info@optilia.eu  
 Web: www.optilia.eu