INSPECTIS

90° Side-view BGA Lenses and Optical Probes

BGA lenses with high-resolution optics, built-in LED lighting and robust probe tips. Premium imaging quality for fast and flexible visual inspection, measurement and documentation of hidden solder joints of BGA, µBGA. FipChip, CSP, CGA and SMD components.

- Interchangeable varifocal BGA lenses for side-view inspection down to 40 microns stand-off
- Built-in white dual LED stereo lighting for bright illumination of solder bumps
- BGA Micro probe with 0.4 x 3.5 mm footprint
- BGA-XM lenses for higher magnification
- Durable and robust optical probes
- ESD protected

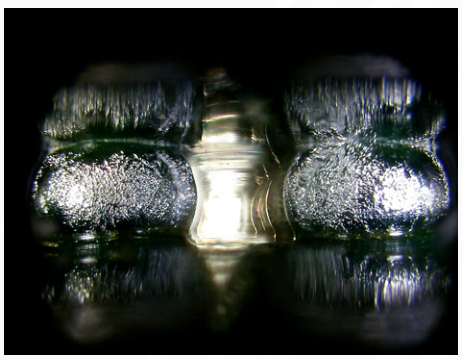
EPA

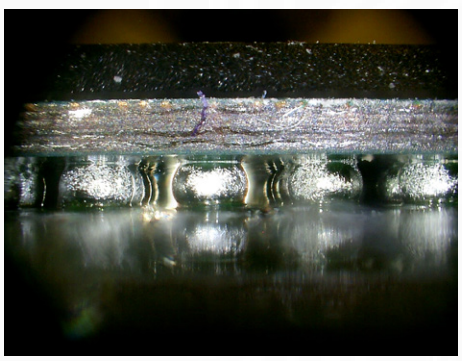
Designed for Productivity!

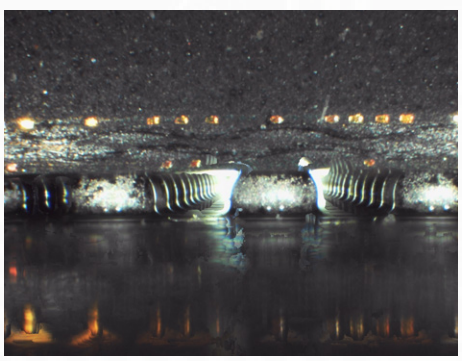
Maximum Flexibility

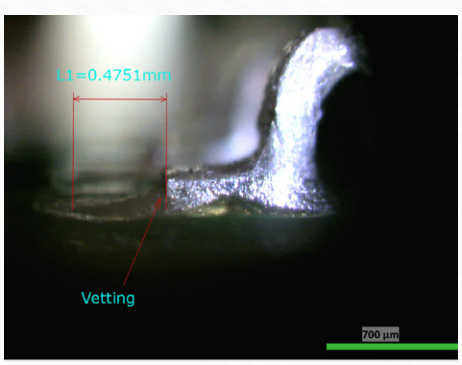
The Inspectis BGA inspection system features the tiniest optical probe with high-resolution optics, built-in lighting, 5.0 megapixel image sensor and high power background illumination mounted on a compact robust stand with XY-translation stage.

The Inspectis BGA system produces high-resolution images of the extremely low-clearance areas beneath BGAs, µBGAs, CSP, CGA and FlipChip packages with as low as 40 microns stand-off.









Specifications

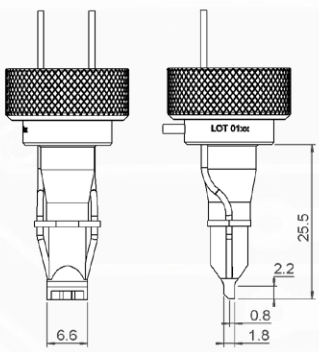
Optical Data:

BGA Optical Probes	Standard	Standard XM	Small Size	Small Size XM	Micro Size
On-screen Magnification*	~ 300x – 36x	~ 370x – 55x	~ 300x – 36x	~ 370x – 55x	~ 250x – 36x
Working Distance (focusing range)	~ 0.5 – 100 mm	~ 0.3 – 20 mm	~ 0.5 – 100 mm	~ 0.3 – 20 mm	~ 1.0 – 100 mm
Field of View (FoV) *	~ 2 – 16.5 mm	~ 1.6 – 11 mm	~ 2 – 16.5 mm	~ 1.6 – 11 mm	~ 2 – 16.5 mm
Required free Working Area	~ 1.8 mm	~ 1.8 mm	~ 1.5 mm	~ 1.5 mm	~ 0.8 mm
Thickness of Optical Probe Tip	1.8 mm	1.8 mm	1.5 mm	1.5 mm	0.8 mm
Width of Optical Probe Tip	6.6 mm	6.6 mm	6.0 mm	6.0 mm	3.5 mm
Foot print of Optical Probe Tip	0.83 x 6.6 mm	0.83 x 6.6 mm	0.7 x 6.0 mm	0.7 x 6.0 mm	0.4 x 3.5 mm

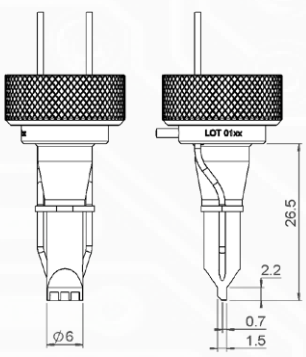
* *On-screen magnification and FoV at FHD format (1920x1080) on 28" monitor.*
* *Maximim magnification and FoV is valid for 0.3mm WD. Minimim magnification is valid for 20mm WD.*

Mechanical Data:

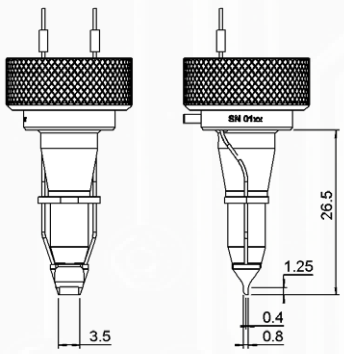
Standard Optical Probe Tip



Small Size Optical Probe Tip



Micro Size Optical Probe Tip



Dimensions in mm

Ordering numbers:

Item name	Item No.
Inspectis Digital Microscope, 5.0Mp, USB, Standard	DM-008
Inspectis Digital Microscope, 5.0MP, USB, XM	DM-008-XM
Inspectis Interchangeable 90° side-view standard BGA inspection lens	BGA-004
Inspectis Interchangeable 90° side-view standard BGA inspection lens, XM	BGA-004-XM
Inspectis Interchangeable 90° side-view small size BGA inspection lens	BGA-005
Inspectis Interchangeable 90° side-view small size BGA inspection lens, XM	BGA-005-XM
Inspectis Interchangeable 90° side-view standard probe tip (Spare part)	BGA-006
Inspectis Interchangeable 90° side-view standard probe tip, XM (Spare part)	BGA-006-XM
Inspectis Interchangeable 90° side-view small size probe tip (Spare part)	BGA-007
Inspectis Interchangeable 90° side-view small size probe tip XM (Spare part)	BGA-007-XM
Inspectis Interchangeable 90° side-view micro size BGA inspection lens	BGA-008
Inspectis Interchangeable 90° side-view micro size probe (Spare part)	BGA-009
Inspectis Interchangeable 8-80x top-view varifocal lens	DM-010

Performance

The Inspectis visual inspection systems feature cutting edge digital optical camera technology equipped with high resolution lens and pre-calibrated optics. We design, manufacture, and deliver carefully specified optical systems with outstanding performance made from durable high-quality materials to make them fit for purpose with a long life in real working environments.

Quality

Our quality management system is certified to ISO 13485:2016 and ISO 9001:2015, and designed to ensure that all products are fit for their intended purpose, meet the required specifications for quality and safety and comply with regulatory requirements and marketing authorisation.

Support

We are committed to being your strategic partner for digital optical inspection systems and be recognized as the technology leader that provides the highest standards of pre and after sales support. From the moment you engage with us and order an Inspectis product, you can be confident of receiving the best possible assistance including product training, software upgrades and help in the unlikely event of something going wrong.

V.4, 2026 Specifications are subject to change without prior notice!

Reseller

INSPECTIS

Quality of Inspection

Inspectis Optical Systems
Stockholm, Sweden

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