





Ersa ERSASCOPE M & Ersa ERSASCOPE M plus

Optical inspection systems for hidden solder joints.

The ERSASCOPE M and M plus are multi-purpose inspection video microscopes to analyze hidden solder joints in electronic production environments including measurements of solder joints on Ball Grid Array (BGA) and many other SMT packages. Their application field covers the visual inspection of components on printed circuit boards in Surface Mount Technology (SMT) or Through-Hole Technology (THT) in general, but also the visual inspection of PCB lands or solder paste prints. The devices can be used in quality assurance, production, laboratories, or R&D departments.

The compact ERSASCOPE M units connect with a PC or laptop via a USB interface, and within minutes they are ready for operation. Thanks to high-quality BGA optical heads, the inspection of components with hidden solder joints is easy. A MACROZOOM lens allows top-view surface inspection in various magnifications. All optical heads are plugged onto the high-resolution digital color camera hand piece which makes changing the optical heads in accordance to the inspection task a matter of seconds.

Long-life dimmable LED lights are integrated in the optical heads and provide optimal illumination of the solder joints. The ERSASCOPE M is equipped with an additional LED brush light for BGA inspection. It is essential for backlight illumination or to light up very hidden and hard to reach areas. The ERSASCOPE M plus includes a powerful external LED light source plus gooseneck light fibres as well as a light brush for optimized illumination conditions.

Both systems come with the ImageDoc inspection software. This proven and well-established software not only displays the live images, but also offers the operator various possibilities for documentation and analysis of the inspection results.

Technische Highlights:

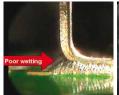
- High-resolution 5 MP USB camera
- Interchangeable high-quality lenses
- Multifunctional tripod and X-Y table with rotation for difficult inspections
- Completely ESD safe
- Including ImageDoc Basic software

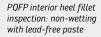
GLOBAL. AHEAD. SUSTAINABLE.

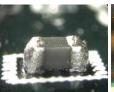


Technical Data:

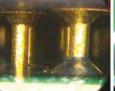
| Order No. | Description | Technical Data | Part | ERSASCOPE M | ERSASCOPE M plus |
|--------------------|---|--|------|-------------|------------------|
| 0VSST080 | Stand with Z-axis micrometer adjustment; integrated fibre optics and camera cables | W x H x D: ~ 500 x 400 x 520 mm Total weight ~ 5 kg Antistatic surface, includes 1,000 mm coated fibre optic cable with gooseneck | | x | х |
| 0VSCA060 | Basic camera unit, digital | 1/3" N-MOS solid state color image sensor 2,592 (H) x 1,944 (V) pixels (5.0 MP), USB 2.0 interface L x W x H: 114 x 36 x 51 mm (without cable) | | x | x |
| 0VSSE060- 90K | BGA lens, 90° optical head for BGA inspection, pitch 1.27 mm | Magnification: 5x up to 280x Focusing range: 0.5 mm up to 100 mm Field of view (FoV): 1.2 up to 50 mm Footprint: 0.8 x 7.1 mm | | х | x |
| 0VSSE060- 90KS | BGA lens small, 90° optical head for BGA inspection in populated areas, pitch 1.0 mm | Magnification: 25x up to 350x Focusing range: 0.3 up to 40 mm Field of view (FoV): 1.0 up to 20 mm Footprint: 0.8 x 6.0 mm | | x | х |
| 0VSSE060- 90KUS | BGA lens ultra small, 90° optical head for inspection of ultra-small BGAs or Flip Chips with pitches <1.0 mm in extremely dense populations | Magnification: 25x up to 350x Focusing range: 0.2 up to 40 mm Field of view (FoV): 1.0 up to 20 mm Footprint: 0.4 x 3.4 mm | | x | х |
| 0VSSE060- MZ80 | MACROZOOM lens 80x, with LED for top-view inspection | Magnification: 8x up to \sim 80x Focusing range: \sim 5 mm up to 200 mm Field of view (FoV): \sim 5 up to 45 mm 43 (L) x 19 (Ø) mm (85 x 35 mm max. incl. telescopic support) | | x | x |
| 0VSLS400 | Dimmable LED light source Energy-saving LED illumination for all ERSASCOPE inspection systems | W x H x D: 170 x 196 x 98 mm Power consumption: max. 65 W Supply: 12 VDC, 5,420 mA Weight: approx. 2.1 kg | | | x |
| 0VSLL200 | Fibre optic cable with gooseneck | | | | х |
| 0VSLF300 | Fibre optic light brush | L 80 mm, W ~10 to ~35 mm | | | x |
| 0VSID300 | ImageDoc Basic 3.X inspection software | Standard software package (included in the scope of delivery) | | Х | х |
| 0VSID300L | ImageDoc EXP 3.X inspection software | Software upgrade to the professional ImageDoc EXP inspection software | | Option | Option |
| 0VSLC100 | Lens cleaning kit | Cleaning cloth, papers and liquid | | Х | x |
| 3ZT00214 | Cleaning tip (ERSASCOPE) | | | Х | х |
| 0VSLS030 | LED brush light | Illumination: 64 x Ø 0.250 mm plastic optical grade fibres, dimensions: Ø 26 x 250 mm (max. 40 x 250 mm) | | X | |
| 0VSXY100 | X/Y table with fine adjust- ment, rotatable, incl. 4 support pins for PCBs | Dimensions: Ø 320 mm Weight: approx. 5 kg | | X | X |



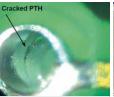




High magnification inspection of 0201s



THT inspection under PGA



PCB inspection inside via hole



ImageDoc Basic inspection software



BGA inspection with reference pictures

