



Unique technological advantages

- 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

ERSASCOPE M – high-resolution BGA inspection and more

The ERSASCOPE M and M plus are multi-purpose inspection video microscopes to analyze hidden solder joints in electronic production environments.

Both units have been designed for optical inspection and digital image recording 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.

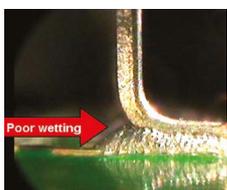
The compact ERSASCOPE M units connect with a PC or any portable computer via a USB interface, and within minutes they are ready for operation. Thanks to the high-quality BGA optical head, the inspection of components with hidden solder joints is easy. A Macro-Zoom lens allows top-view surface inspection in various magnifications. Both optical heads are plugged onto the high-resolution digital color camera hand piece with a "Quick Snap" connection.

Changing the optical heads in accordance to the inspection task is a matter of seconds. Long-life and very bright controllable LED lights are integrated in both optical heads and provide optimal illumination of the solder joints.

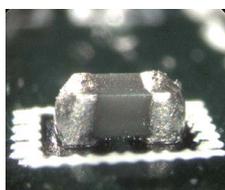
The ERSASCOPE M is equipped with an additional LED brush light for BGA inspection. It is essential for backlight illumination or to light up very hidden and hard to reach areas.

The ERSASCOPE M plus includes a powerful external LED light source plus gooseneck light fibers as well as a light brush for optimized illumination conditions. Both systems assist to quickly detect soldering errors.

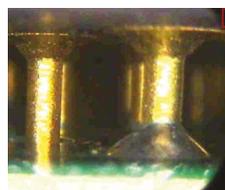
Both systems come with the ImageDoc inspection software. This proven and well-established software not only displays the live images, but also offers the operator various possibilities for documentation and analysis of the inspection results.



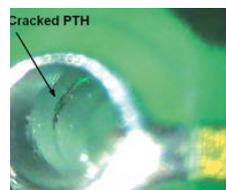
PQFP interior heel fillet inspection: non-wetting with lead-free paste



High magnification inspection of 0201s



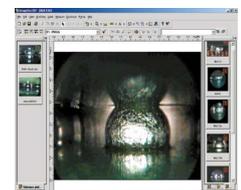
THT inspection under PGA



PCB inspection inside via hole



ImageDoc Basic inspection software



BGA inspection with reference pictures

Optical inspection systems for hidden solder joints

Order Number	Description	Technical data	Part
0VSSC080P	ERSASCOPE M plus, consisting of:		
0VSST080	ERSASCOPE 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 surface: antistatic; includes 1,000 mm coated fibre optic cable with gooseneck	
0VSCA060	Basic camera unit, digital	1/3.2" N-MOS solid state color image sensor 2592 (H) x 12944 (V) pixels (5.0 MP), USB 2.0 serial bus L x W x H: 114 x 36 x 51 mm (without cable)	
0VSSE060-90K	BGA lens, 90° optical head	on screen magnification: ~ 180x – 15x on 14" monitor working distance range: ~ 0.5 – 30 mm (focusing range)	
0VSSE060-MZ80	Macro zoom 80x with LED light	footprint ø 6 mm; magnification up to 250x (20" monitor) 1,600 x 1,200 pixel resolution, no digital zoom	
0VSL5400	LED light source Energy saving LED illumination for all ERSASCOPE inspections systems	W x H x D: ~ 170 x 196 x 98 mm; supply: 12 VDC, 5,420 mA power consumption: max. 65 W; weight: ~ 2.1 kg	
0VSL200	Fibre optic cable with gooseneck		
0VSLF300	Fibre optic light brush	L 80 mm, W ~10 to ~35 mm	
0VSXY100	ERSASCOPE 2 table with 4 PCB supports	X-Y-movement with fine adjustment and antistatic mat; dimension: ø 320 mm, weight: ~ 5 kg	
0VSI300	ImageDoc Basic 3.x/software update		
0VSLC100	Lens cleaning kit	Cleaning cloth, papers and liquid	
3ZT00214	Cleaning tip (ERSASCOPE)		

0VSSC080	ERSASCOPE M, consisting of:		
0VSST080	ERSASCOPE 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 surface: antistatic; includes 1,000 mm coated fibre optic cable with gooseneck	
0VSCA060	Basic camera unit, digital	1/3.2" N-MOS solid state color image sensor 2592 (H) x 12944 (V) pixels (5.0 MP), USB 2.0 serial bus L x W x H: 114 x 36 x 51 mm (without cable)	
0VSSE060-90K	BGA lens, 90° optical head	on screen magnification: ~ 180x – 15x on 14" monitor working distance range: ~ 0.5 – 30 mm (focusing range)	
0VSSE060-MZ80	Macro zoom 80x with LED light	footprint ø 6 mm; magnification up to 250x (20" monitor) 1,600 x 1,200 pixel resolution, no digital zoom	
0VSL5030	LED brush light	64 x 0.250 mm (Ø) plastic optical grade fibres Ø 26 x 250 mm (max. 40 x 250 mm)	
0VSXY100	ERSASCOPE 2 table with 4 PCB supports	X-Y-movement with fine adjustment and antistatic mat dimension: ø 320 mm, weight: ~ 5 kg	
0VSI300	ImageDoc Basic 3.x/software update		
0VSLC100	Lens cleaning kit	Cleaning cloth, papers and liquid	
3ZT00214	Cleaning tip (ERSASCOPE)		

ERSASCOPE M and ERSASCOPE M plus can ONLY run with ImageDoc inspection software, please choose one of the packages below:

0VSI300	ImageDoc Basic 3.X	Standard software package (included in the delivery)	
0VSI300L	ImageDoc EXP 3.X	Professional multimedia inspection software (option)	

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