

DATA

# ERSASCOPE 1

## Optical Inspection System for the hidden solder joints of BGAs, SMDs & THTs



### The patented ERSASCOPE 1, the world's first BGA optical inspection system is now available at a lower cost.

For almost a decade, over 3,000 users worldwide are benefiting from the ability to inspect hidden solder joints. Whether for inspection under BGAs, PLCCs or for inspection where other microscopes cannot see, ERSASCOPE technology offers a significant added value to any Quality Assurance program. Industry experts continue to promote the need to inspect hidden joints with ERSASCOPE technology!

The ERSASCOPE 1 is a newly designed unit offering the award winning ERSASCOPE inspection capability at the lowest price possible. The core component of the system, the ERSASCOPE optic, is the original, patented optical endoscope.

A new WVGA USB 2.0 camera uses CMOS technology offering optimal light sensitivity and resolution. The halogen light source supplies optimal light to both the ERSASCOPE 1 optic

as well as the flexible gooseneck lighting which is included standard with the system.

The multifunctional ERSASCOPE inspection stand includes Z-axis course and fine adjustment of the scope and offers a total of 7 axes of movement for the scope. It is thus possible to view an object at almost any angle! The X-Y PCB table has two movement wheels for course and fine movement of the PCB during inspection.

The user friendly ImageDoc Basic software package is included standard with the system. This software offers the following features: Live Image/Still picture; Reference Picture Groups/Image Database; Limited ERSA/Fraunhofer Database with Soldering Problems/Solutions; Image processing/labelling; Measurement & Automatic Measure Control function as well as basic Reporting & Emailing functions.



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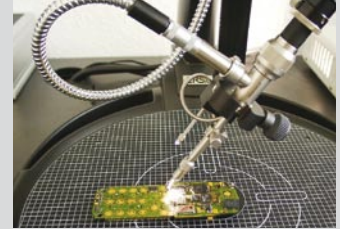
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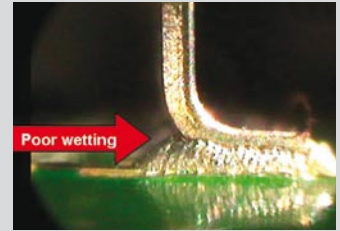
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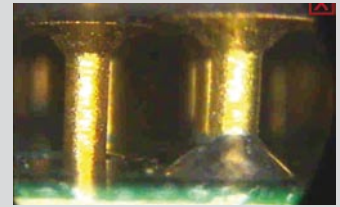
Part Number	Description	Technical Data	Part
<b>0VSSC070</b>	<b>ERSASCOPE 1 System consisting of:</b>		
0VSSE100	<b>ERSASCOPE 1</b> endoscope with integrated lens and fibre optic system	focus ring & adjustable back light footprint 1.5 x 4.5 mm magnification up to 400x* typical inspection gap ~ 300 µm	
0VSCA1225	<b>Digital USB Camera</b> color inspection camera	digital (USB 2.0) manual or auto white balance 1/3" CMOS chip	
0VSTV036	<b>TV Adapter</b> connects optical carrier to CCD camera	60 mm focus area C-Mount type	
0VSLS070	<b>Halogen light source,</b> adjustable	(W x H x D): 130 x 55 x 235 mm 220 V - 240 V~, 50 Hz, 45 W or 115 V - 127 V~, 60 Hz, 45 W weight: ~ 1.8 kg	
0VSST210	<b>ERSASCOPE stand</b> with z-axis micrometer adjustment; integrated fibre optics & camera cables	W x H x D: ~ 500 x 400 x 520 mm total weight ~ 5 kg surface: antistatic includes 1000 mm coated fibre optic cable with gooseneck	
0VSYX090	<b>ERSASCOPE 1 table</b> with 4 PCB support columns	X-Y movement with fine adjust wheels; antistatic mat with grid dimension: ø 320 mm weight: ~ 3 kg	
0VSI135	<b>ImageDoc Basic 1.3</b>	general inspection software	
<b>Optional items:</b>			
0VSUP6XL	<b>Upgrade kit XL</b> upgrades the ERSASCOPE stand and table for inspection of very large PCBs	antistatic XL table (600 x 700 mm), telescopic arm, optic holder and light cable extender	
0VSMS100	<b>MAGNISCOPE</b> 0° static endoscope with integrated lens & fibre optic system	focus ring magnification up to 400x* *20" monitor, 1600 x 1200 pixel resolution, no digital zoom	
0VSMZ100	<b>MACROZOOM lens</b> for high magnification top view surface inspection	70 x zoom lens aperture adjustment: F 5.6 – 32 C focus adjustment: 180 – 450 mm	
0VSFR100	<b>MACROZOOM ring light</b>	optical fibre ring light	
0VSMZ300H	<b>MACROZOOM holder</b>	connects lens to stand	
	<b>ERSASCOPE 2 Upgrade kit,</b> upgrade the ERSASCOPE systems to ERSASCOPE 2	for complete ordering info, contact your ERSA representative directly	
0VSLLV200	<b>Light fibre extension</b>	L 200 mm	
0VSLF200	<b>Fibre light fan</b>	L 35 mm, W 5 mm	
0VSLF300	<b>Fibre optic light brush</b>	L 80 mm, W ~10 to ~35 mm	
0VSRM100	<b>Glass calibration scale</b>	10 µm lines at 100 µm pitch	
0VSLC100	<b>Lens cleaning kit</b>	cleaning cloth, papers & liquid	
0VSSH100	<b>Dust cover</b>	antistatic textile	
0VSI201	<b>ImageDoc EXP 2.0</b>	professional inspection software	



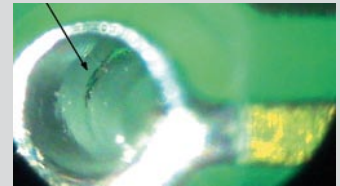
0° to 90° surface inspection with high magnification images at any angle



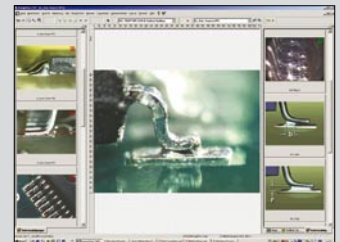
PQFP interior heel fillet inspection: non-wetting with lead-free paste



THT inspection under PGA



PCB inspection inside via hole



ImageDoc Basic inspection software

Visit [www.ersa.com](http://www.ersa.com) to see Demo video & publications!

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