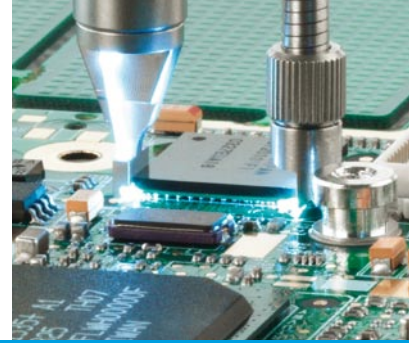


DATA

ERSASCOPE 2

Optical Inspection System with special lenses for BGAs, Flip Chips & much more



The ERSASCOPE 2 is the world's only optical inspection system for Flip Chips & CSPs

The ERSASCOPE 2 optical carrier is a highly advanced, endoscope based system offering three optical heads (lenses) with precise image focussing, superior light management & software supported image processing.

The complete system comes standard with a MHLS Metal Halide Light Source. The long life metal halide light bulb offers a much cleaner, & brighter white light compared to other systems. A mechanical iris on the MHLS station regulates the light quantity without changing the temperature or colour during dimming. Two mechanical irises on the optic carrier allow for individual & separate continuously variable dimming (0 to 100 %) of the front & back lights. Also standard is a newly designed fibre optic light brush made up of individual fibres (0.050 mm diameter) which can be inserted under most area array packages for optimal lighting during inspection.

Optical image quality depends not only on precision optics, but also on the camera technology as well as lighting technology. The high-

resolution & highly light sensitive ERSA USB 2.0 digital camera with 1.3 megapixels delivers images of high detail & perfect contrast. Even the smallest object details can be captured and used for quality assurance & documentation purposes.

The ERSASCOPE stand & inspection table offer the most accurate BGA inspection in the fastest cycle time when compared to all competitive systems on the market. The greatest flexibility with a total of 7 axes of movement of the ERSASCOPE optic positioning is guaranteed: optics pan positions every 90°, unlimited table rotation, unlimited camera rotation, free tilting of optic between +/- 90° with zero degree lock position, X-Y-Z adjustment in micrometer range.

Finally, the ERSASCOPE 2 must be run with ERSA's ImageDoc inspection software. This multimedia software package includes a large database of typical problems & solutions as well as advanced recording, measurement & reporting functions.



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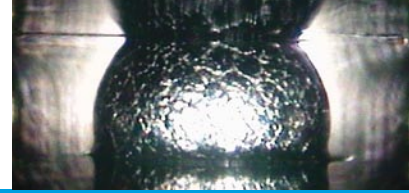
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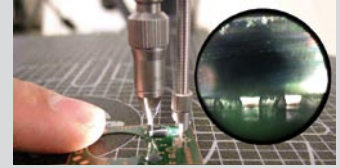
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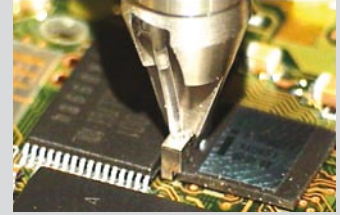
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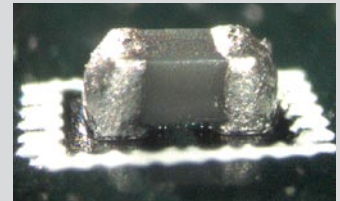
Part Number	Description	Technical Data	Part
0VSSC600	ERSASCOPE 2 System, consisting of:		
0VSSC200-T	Optical carrier endoscope with integrated lens and fibre optic system	calibration scale, focus ring and two each mechanical iris for front & back light	
0VSSE200-90K	90° Optical lens with integrated lens and fibre optic system	footprint 3 x 6 mm magnification up to 425x* typical inspection gap ~ 300 µm	
0VSSE200-FCK	Flip Chip Optical lens with integrated lens and fibre optic system	footprint 1.5 x 4.5 mm (0.6 x 4.0 mm) magnification up to 700x* typical inspection gap ~ 30 µm	
0VSSE200-0K	0° Optical lens for surface inspection	footprint ø 6 mm magnification up to 250x* *20" monitor, 1600 x 1200 pixel resolution, no digital zoom	
0VSCA2240	High resolution CCD color inspection camera	SXGA digital (USB 2.0) manual or auto white balance 1.3 million pixels; 1/3" CCD chip	
0VSTV200	TV Adapter connects optical carrier to CCD camera	60 mm focus area C-Mount type	
0VSLS300	Light source MHLS Metal Halide Light Source with long-life metal halide bulb	W x H x D: 175 x 82.5 x 202 mm 220 V - 240 V~, 50 Hz, 120 W or 115 V - 127 V~, 60 Hz, 120 W weight: ~ 2.5 kg	
0VSLR200	Light regulator for gooseneck	mechanical iris adjusts 0 to 100 %	
0VSLLV200	Light fibre extension	L 200 mm	
0VSLF200	Fibre light fan	L 35 mm, W 5 mm	
0VSLF300	Fibre optic light brush	L 80 mm, W ~10 to ~35 mm	
0VSRM100	Glass calibration scale	10 µm lines at 100 µm pitch	
0VSLC100	Lens cleaning kit	Cleaning cloth, papers & liquid	
0VSSH100	Dust cover	antistatic textile	
3VP00640	Storage Case	W x H x D: ~ 325 x 230 x 110 mm aluminum with padded insert	
0VSST210	ERSASCOPE stand 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	
0VSYX100	ERSASCOPE 2 table with 4 each PCB supports	X-Y-θ movement with fine adjust wheels and antistatic mat with grid dimension: ø 320 mm weight: ~ 5 kg	
ERSASCOPE 2 can ONLY be run with ImageDoc software, please choose one of the packages below:			
0VSD201	ImageDoc EXP 2.0	Multimedia, professional inspection software	
0VSD135	ImageDoc Basic 1.3	General inspection software	



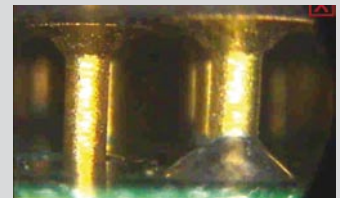
Typical inspection gap of Flip Chip lens ~ 30 µm



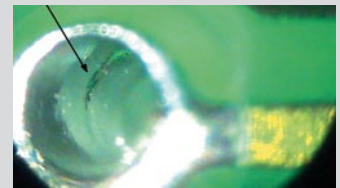
Small footprint of Flip Chip lens: 0.6 mm x 4.0 mm



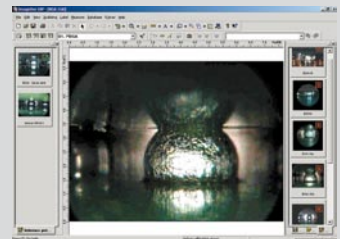
High magnification inspection of 0201s



THT inspection under PGA



PCB inspection inside via hole



ImageDoc inspection software



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GLOBAL CONNECTIONS

Visit www.ersa.com to see Demo video & publications!

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