



AOI with Golden Board or CAD-Data

The optical inspection unit ViComp supports operators during the test and repair work. Manual and automatic inspection methods allow an fast and easy setup of test programs for different sizes of batches.

For small batches and prototyping programming can be done fast and easily by image comparison with a Golden Board. A manual and an automatic mode are available.

In the manual mode alternating images of the golden board and the production board are shown on the monitor. The differences between the images (defects) will be recognised by the operator at once, as the human eye is trained to recognise fast changes.

In the automatic mode the areas to be tested have to be predetermined. When using a bare board or a printed board, these test areas are created automatically. All of these test areas are later compared with the Golden Board. A report will be generated during the test.

If a Golden Board is not available, a normal production board can be used, with all the variations in process quality. These boards are not perfect references, but the programming is fast and easy.

If the batch size is bigger or a higher level of test depth and a lower quantity of pseudo defects are required, the programming with CAD-data is advised. The comprehensive component library and a user friendly menue simplifies programming. The component library provides all parameters which can be modified by the operator.



Additionally, new customer specific libraries can be set up.



CAD-data are also used in a special method for first sample inspection. Each component, one after another, appears magnified on the screen together with its corresponding value, such as parts number or value. The



inspection will be recorded in a file.

The printing on the components is sometimes not visible with standard lighting from the top. By using light from the side most of the printing can be recognised more clearly.

An ultraviolet lamp (365nm) is optionally available for inspection of



fluorescent conformal coating.

The homogenous lighting in combination with the high-resolution camera, the zoom lens and the big clearance height enable the operator to do rework in the test system, at a magnification up to 64x.

General Features:

Manual loading of pcb Manual optical inspection by displaying alternately the reference and the live image at screen Smooth images by automatic alignment of the images Automatic optical inspection by image comparison of golden board and production board Automatic optical inspection using CAD-Data and component library Alignment of pcb by fiducial marks or reference images 5 Megapixel- digital colour camera Side-LED for character recognition Image archive of defects External rework station with statistical process control Motor zoom lens with magnification 32x (Option) Measurement tool for geometrical dimensions (Option) UV-lamp (365nm) for inspection of fluorescent conformal coating (Option)

Test Features:

2D-Solder Paste Inspection Pre-Reflow Inspection Post-Reflow Inspection First Sample Inspection Optical Character Recognition (Option) Inspection of fluorescent conformal coating (Option)

Technical Data:

Art.Nr. VIC-2.0: Dimensions: 780mm*700mm*700mm (H*W*D) Max. PCB format: 280mm*300mm Art.Nr. VIC-2.0.1: Dimensions: 780mm*900mm*700mm (H*W*D) Max. PCB format: 380mm*300mm Art.Nr. VIC-2.0.2: Dimensions: 780mm*1100mm*800mm (H*W*D) Max. PCB format: 480mm*400mm Thickness of PCB: 0,8mm-4mm Weight: appr. 50kg El. Power consumption: 230V / 400VA Image acquisition: digital colour camera 5MP, Hi-Speed USB 2.0-Interface Resolution: 20μ m per pixel, others on request Magnification: 7x at 20" monitor Lighting: high-frequent, flicker-free, shadow-free Monitor: 20"-TFT-Display Optical distance: appr. 400mm Operating system: Windows XP, Vista

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