

Can you see the black sheep?

We do!

Error qualification on circuit boards and modules - automatically at a glance

The new optical inspection and verification system of

ACHAT5

VinCam

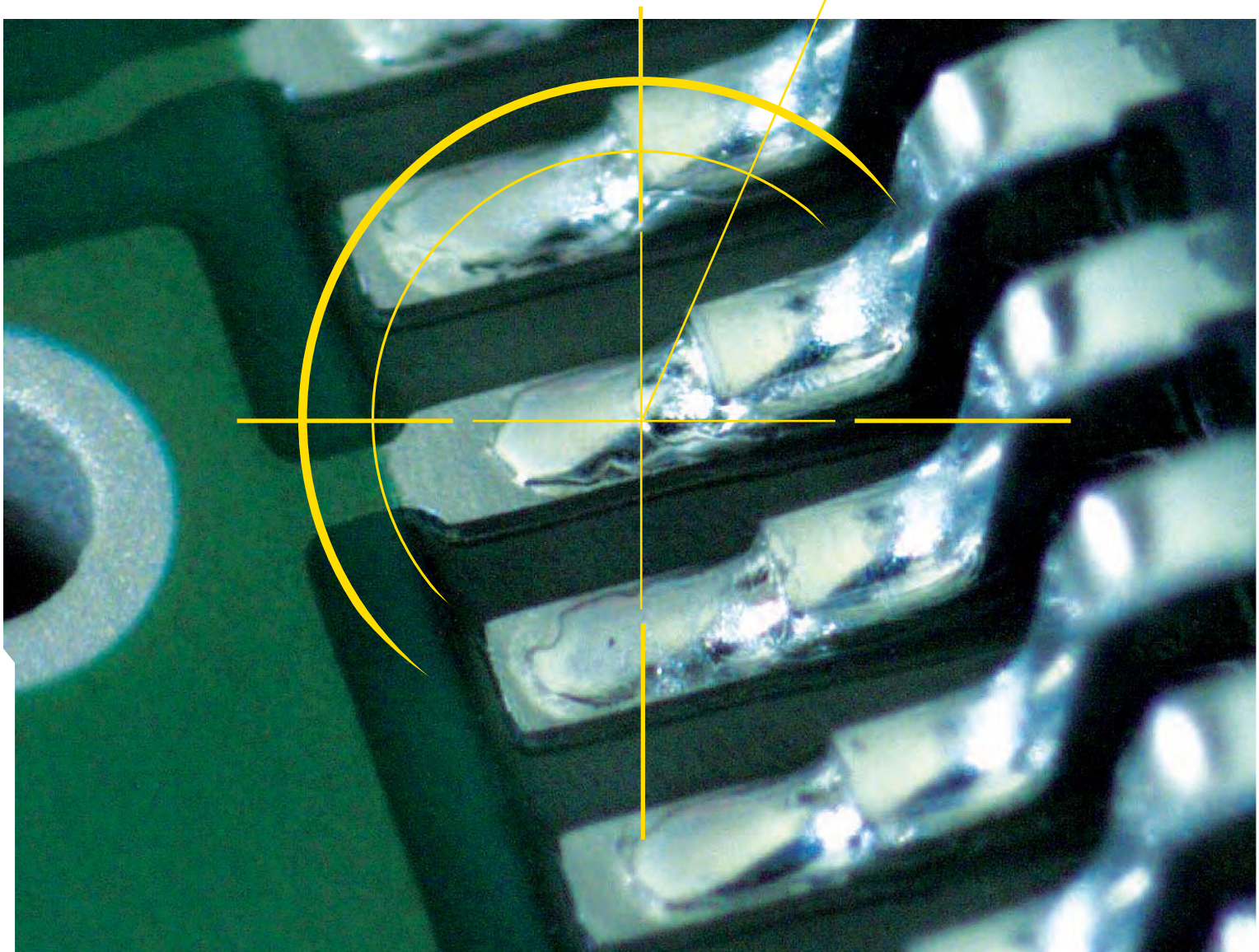


» We have an eye for safety and quality!

The identification and verification of errors in the manufacture and assembly of surface mount components on printed circuit boards is a critical production step. Unidentified faults at this stage can have far reaching consequences.

Current AOI systems are an important part of quality management. But they only provide an indication of the errors - the crucial step remains in the optical inspection and verification by an employee.

The standard procedure here, using an illuminated magnifying glass and microscope, quickly reaches their limits: at low magnification, cumbersome operation, especially in difficult positions for example the view from the rear of the board. Manual contact with the devices also create problems of hygiene - down time of qualified employees is inevitable. The inspection and verification system VinCam from ACHAT5 opens up a new dimension in digital microscopy and complete, automatic integration in the in-line process.



>> A camera, that takes a stand!

Speed, precision and flexibility are the virtues of the new VinCam. Using coordinates from AOI data or from an editor the camera moves and rotate to any required position.

Via an exact angle positioning each component can be viewed on all sides, especially in the oblique or back view. The result is a perfect for making an assessment of all the solder joints. Of course, a manual control of the camera on all three (four) axes is also possible.



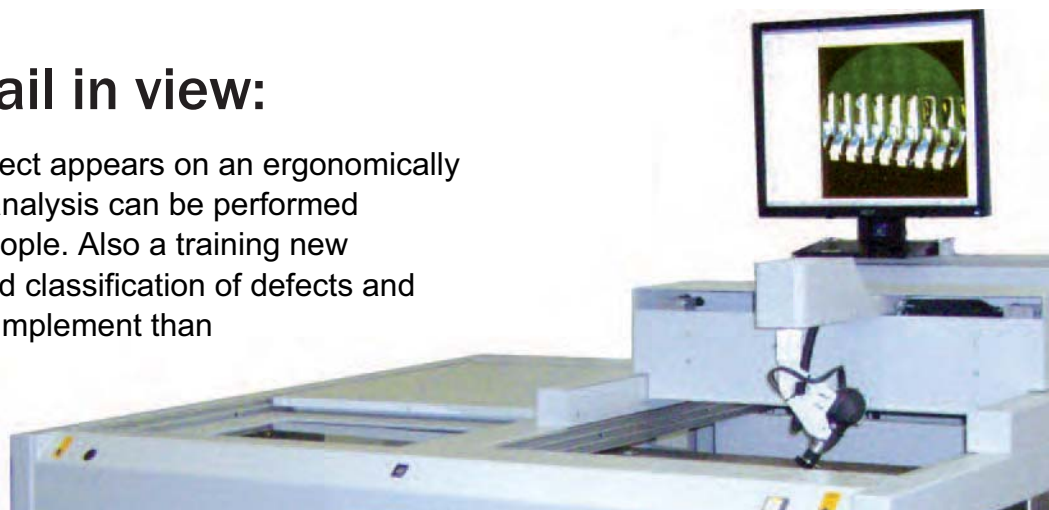
Rotation axis:
Component views with different camera positions

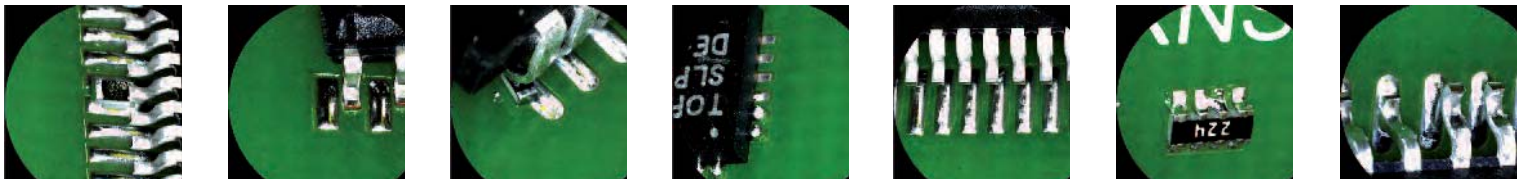
>> Keep your orientation with the help of the VinCam Software:

To facilitate the auditing work and to avoid misjudgements, the image is displayed to that it always appears to the viewer that they are looking from the front. Rapid changes in the position and angle of the camera do not lead to incorrect orientation of the employee.

>> Keep every detail in view:

Optimally illuminated, the object appears on an ergonomically mounted LCD monitor. The analysis can be performed simultaneously by several people. Also a training new employee in the detection and classification of defects and pseudo defects is simpler to implement than with conventional devices.





AOI alarms: placement, short, lifted lead, solder joint, Ideal view for classification

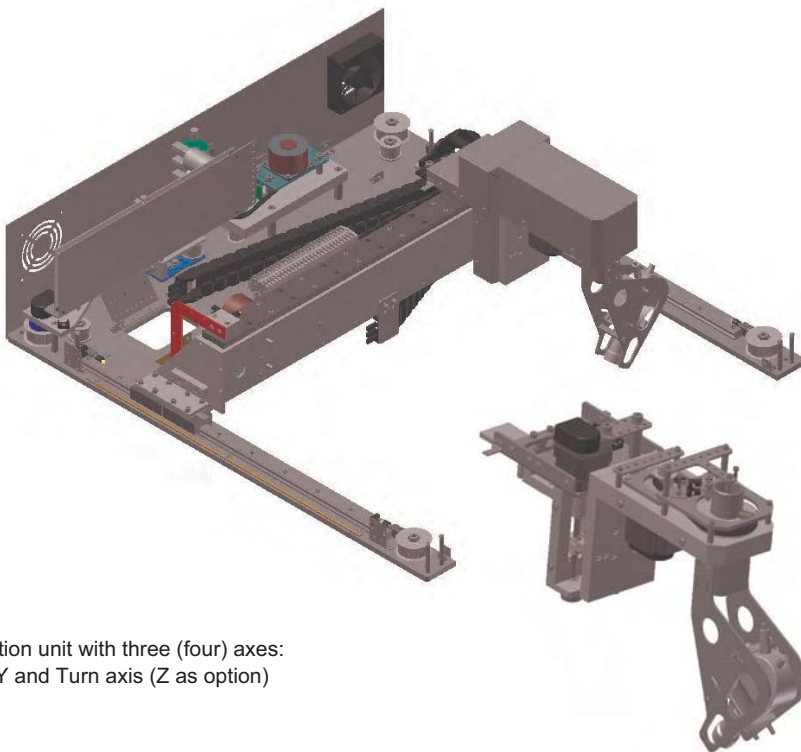
>> Clear view from a distance - remote control as an option

Work noise and other factors can adversely affect the attention of the operator. One answer is use of remote control option to control the entire VinCam unit, with all activities carried out in a separate room. The full functionality of the camera positioning and camera control is maintained.

With a known low level of false call on your line, you may want monitor several SMT lines from a central test station. Here VinCam has interfaces that allow the sorting of printed circuit boards in accordance with classification OK or NG to be made.



Operator panel for manual control



Motion unit with three (four) axes: X, Y and Turn axis (Z as option)

VinCam

Benefits at a glance:

- Inline capable system
- Automatic control of errors and repair job
- Optical viewing of difficult to reach positions
- Unrestricted 360° rotation range
- Positioning of all three (four) axes X,Y,T (Z) manually
- Viewing angle always from the front
- Simple operation and control
- Remote control optional





ACHAT5 - first-rate gems in your manufacture

For thousands of years agates (ACHAT) have held the power to be use as tools.

As healing stones agates can help their owners to gain affluence and give manifold protection. A high degree of hardness and density make this semi-precious volcanic rock hardwaring and thus an ideal modern material component - especially in technical areas.

We shall continue these traditions from Januar 2012.

Profit doubly - from our long-standing know-how and new ideas.

The basic component of your success is ACHAT5.

ACHAT5 stands for automation - customizing - handling - aoi-options - traceability
5 disciplines at only one stop.



- PCB Loader, Unloader
- Rack or Stack
- LIFO and/or FIFO - Buffer
- Conveyor and transfer systems
- Turn-, Flip-, Shuttle- units
- Transfer systems for solder frames

- Application cells
- Workstations
- Traceability

VinCam



Technical data

			VinCam	VinCam plus
Motion unit (strokes)				
Linear axis	X	mm	380	500
Linear axis	Y	mm	380	480
Rotation axis	T	°	360	360
Dimension of "on top unit")				
Length	X	mm	380	500
Width (Depth)	Y	mm	380	480
Height	Z	mm	ca. 300 + LCD-Monitor	
Weight	ca.	kg	40	65
Optical system USB-Camera with LED-illumination				
Magnification	ca.	mm	real 1	Dimension on ~19" LCD ~ 50
Resolution (Camera)	ca.	pixel	1	0,007mm
	ca.	pixel	145	1mm
Field of View (FOV)	ca.	mm	~ 4x5	
Alignment of Camera Angle to vertical axis	ca.	°	~ 30	
Distance of the camera lens to PCB	ca.	mm	~ 25	

There are other optical units and possible arrangements.



ACHAT5

automation - customizing - handling - aoi-options - traceability



ACHAT Engineering GmbH
 Marie-Curie-Str. 3c · 38268 Lengede · Germany
 Tel. +49 5344 80399-0 · Fax +49 5344 80399-28
 info@achat5.com - www.achat5.com

