

Press Release

Multi-award-winning ultra-fast inspection system for concealed solder joints

Hanover, Germany, November 2018 – electronica, hall A3, stand 642 –
For in-line X-ray inspection (3D AXI), Viscom AG has developed the extremely fast printed circuit board transport system xFastFlow. This innovative solution is used in Viscom's X7056-II inspection system, which has won multiple awards and which can be seen at the electronica trade show in Munich from November 13-16.

The X7056-II by Viscom eminently meets the demand of electronics manufacturing companies for the combination of extremely fast assembly handling with optimal quality control. Moreover, the inline X-ray system can be extended with additional automatic optical inspection (3D AOI) within its existing housing. With xFastFlow the machine achieves handling times (infeed and outfeed of the object to be inspected) of down to four seconds. Up to three printed circuit boards can be processed simultaneously in the 3D AXI system.

High-performance flat-panel detectors — depending on the configuration either fixed or movable — ensure top-quality 3D X-ray images. With the help of planar computer tomography, both horizontal and vertical layer images that no longer show any disruptive structures, in contrast to 2D results, can be extracted from the data volume. For example, a slice-by-slice view into the interior of an array of BGA balls is possible. "Head-in-pillow" errors in BGA components or voids in surface soldering are quickly and reliably detected. Depending on the requirements, inspection depth and throughput, as well as 3D and 2D inspection, can be combined as desired.

The inspection system is operated with the extremely user-friendly vVision software from Viscom and offers outstanding networking options within quality assurance processes during manufacturing — perfect for Industry 4.0 and smart factories. The X7056-II has already won four international

awards: the productronica innovation award 2017 (Inspection & Quality Cluster), the CIRCUITS ASSEMBLY 2018 New Product Introduction (NPI) Award (Test & Inspection – AXI), the 2018 SMT China VISION Award (Inspecting & Testing – AXI) and an EM Innovation Award from Electronics Manufacturing Asia, likewise presented in 2018.

Captions:

01_Voids can prevent optimal heat dissemination in soldered joints of LEDs. The 3D AXI image quality (right) offers excellent void recognizability, in contrast to 2D AXI (left)

02_The 3D AXI technology of the X7056-II system by Viscom makes the writing of inspection programs easier, among other things

About Viscom

Viscom AG develops, manufactures, and sells high-quality inspection systems. The spectrum encompasses their complete bandwidth of optical and X-ray inspections. In the area of assembly inspection for electronics manufacturing, the company is among the leading suppliers worldwide. Viscom systems can be configured specifically for each customer and can be interlinked. The company headquarters and manufacturing site are located in Hannover, Germany. Viscom has a large international network of branches, application centers, service support points and representatives. Founded in 1984, Viscom has been listed on the Frankfurt Stock Exchange (ISIN: DE0007846867) since 2006. For additional information visit <https://www.viscom.de/>