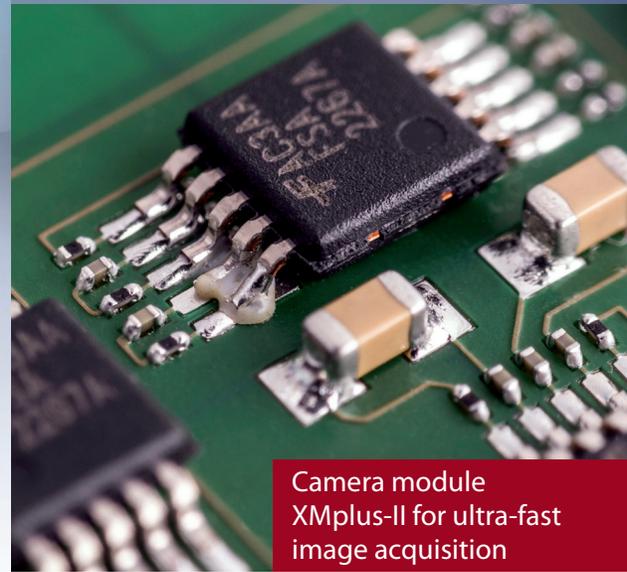




Exceptional
3D Computing
Power and Reliable
Measurement
Accuracy



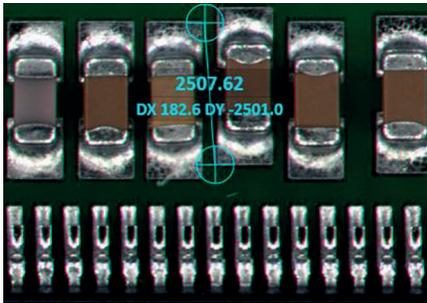
Camera module
XMplus-II for ultra-fast
image acquisition



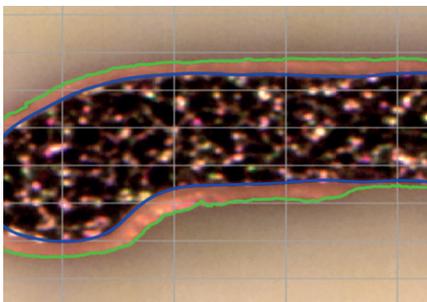
iS6059 PCB Inspection Plus

Smart networked automatic optical
inspection of complex assemblies

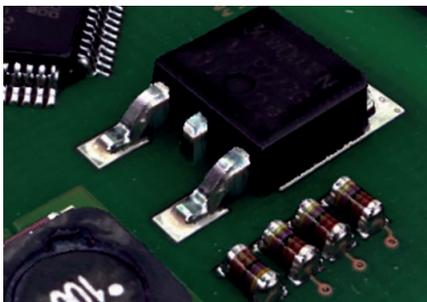
Line-Integrated Quality Control for Highest Requirements



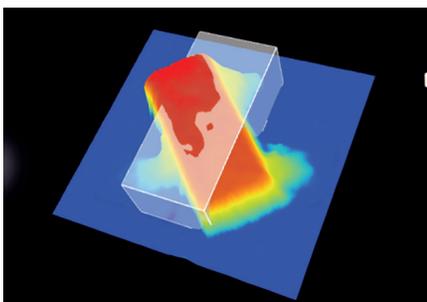
Simple measurement of standards and exceptional cases



Inspection of cut voids using a combined 2D, 2½D, and 3D approach



Complete rendering with 360View for verification tasks



Component body detection using 3D methods

Uncompromisingly good imaging thanks to state-of-the-art sensor technology

High resolution for precise inspection of microscopic components

Large tilted views for the most accurate analyses

Smart verification with optional AI integration

Intuitively simple operation and creation of inspection programs

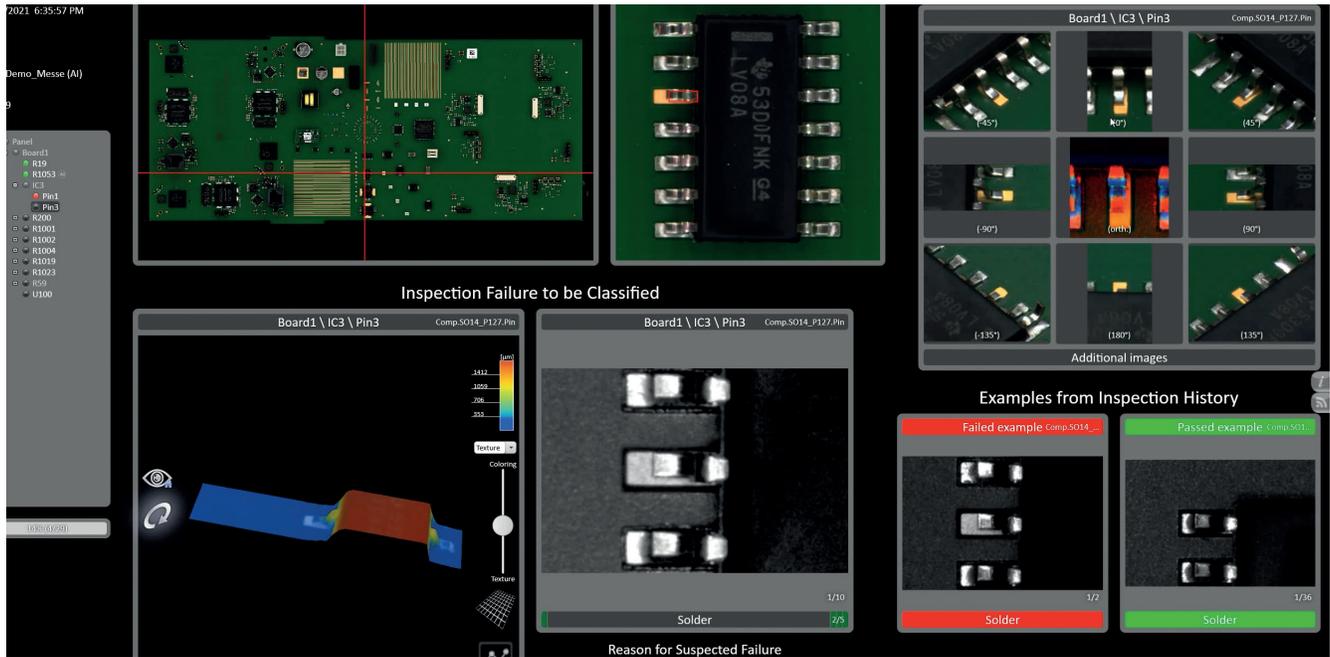
Fast data processing with powerful frame grabber

Extremely fast handling of the inspection objects

Competent service worldwide – online, by phone, and on site

Electronic products must function reliably and, in many cases, meet very high safety requirements. Quality and durability are crucial. Against this background, first-class 3D and software features, high measurement accuracy, and exceptional image quality are expected from an automatic optical inspection system – as well as a very robust construction.

When producing for a variety of customers and markets, simple programming and flexible handling are particularly important. In such cases, it is necessary to cover different products in small or large production quantities flexibly while still being able to quickly and comprehensively detect any manufacturing defects. In the case of very large quantities, throughput is particularly important. Viscom takes these and many other considerations into account in the development of new inspection systems.



Classification of inspection results with the vVerify software from Viscom

Automatic optical inspection is constantly evolving. This applies equally to image quality as well as to the evaluation of results and the networking of inspection data for the optimization of production processes.

Viscom has been offering the 3D option for its automatic optical systems since 2013, which has been continuously developed since then and is now a worldwide standard. Hardware, algorithms, and applicative possibilities are meeting **increasingly higher requirements**. The iS6059 PCB Inspection Plus' nine perspectives, together with the integrated, individually programmable projector, enable **complete 360-degree views in 3D and precise height measurements** of the smallest components.

In the XMplus-II camera module, for example, the developers at Viscom have **maximized the tilted fields of view**. There is also now **even more depth of field** from every angle. This makes it possible, among other things, to recognize characters on even higher components. Thanks to the **VEG105** frame grabber and **ultra-high-speed lighting**, hardware-accelerated 3D recalculation achieves an unprecedented level of performance and meets the **highest demands for cycle times** with the best image quality and repeatability. The circuit boards are changed in a matter of a few seconds.

3D methods have long been established, for example, for checking the presence of electronic components as quickly

as possible or measuring the exact heights on an assembly. In addition, precise **3D solder joint inspection** also plays an important role today and is equally reliably covered with the iS6059 PCB Inspection Plus from Viscom. **Sophisticated inspection methods** are available to quickly and fully automatically check whether even the solder joint of the smallest electronic component is still normal or is already too thin. **Artificial intelligence (vAI)** can be gradually integrated into **inspection program creation and verification tasks**.

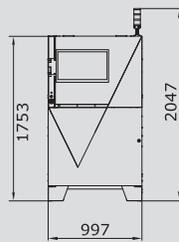
Depending on the weighting between speed and image quality, the XMplus-II camera module offers **suitable lighting options**. As with previous systems from Viscom, **2D, 2½D, and 3D approaches are combinable** as desired. For example, the correct polarity would be quickly checked in 2D. **Results from 3D SPI, 3D AOI, 3D AXI, and 3D MXI** can be smartly brought together for comprehensive networked quality control. The iS6059 PCB Inspection Plus is also designed to automatically **take additional images** at predetermined positions on instruction from the solder paste inspection. Solutions such as **IPC HERMES 9852** or **IPC CFX** are also integrated.

With the 3D-AOI system iS6059 PCB Inspection Plus, **processes are significantly improved and returns are consistently avoided**. Manufacturing costs can be reduced in the long term and the high quality of even the most demanding electronic products can be ensured.

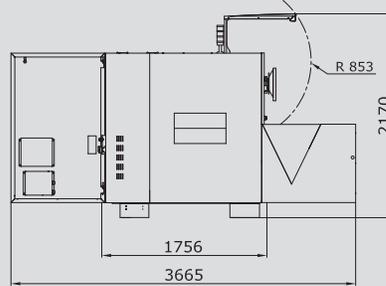
Technical Specifications



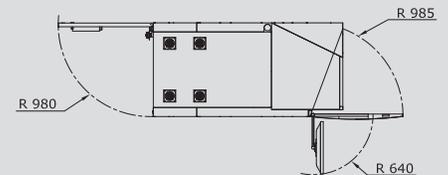
Front view



Side view



Top view



Dimensions in mm

iS6059 PCB Inspection Plus

Inspection scope		Solder joints, mounting, open surfaces, character recognition, solder paste, mold, assembly
Camera technology		XMplus-II
	Total number of megapixels	Up to 150
	3D sensor technology	
	Z-resolution	0.5 μ m
	Z-range	Up to 30 mm (1.2")
	Angled view cameras	
	Number of megapixel cameras	8
Inspection speed	Orthogonal camera	
	Resolution	10 μ m
	Field of view	50 mm x 50 mm (2" x 2")
Software	Inspection speed	Up to 80 cm ² /s
	User interface	Viscom vVision/SI EasyPro
	Statistical process control	Viscom vSPC/SPC, open interface (optional)
	Verification station	Viscom vVerify/HARAN
	Remote diagnosis	Viscom SRC (optional)
System computer	Programming station	Viscom PST34 (optional)
	Operating system	Windows®
PCB handling	Processor	Intel®Core™i9
	PCB dimensions	508 mm x 508 mm (20" x 20"); long-board option available
	PCB support	Optional
	Transport height	850 - 950 mm \pm 20 mm (33.5" - 37.4" \pm 0.8")
	Width adjustment	Automatic
	Transport concept	Single-track transport system; dual-lane option available
	PCB clamping	Pneumatic
	Upper transport clearance	50 mm (2")
Lower transport clearance	50 mm (2"), other heights on request	
Other system data	Positioning unit	Synchronous linear motor
	Interfaces	SMEMA, SV70, Hermes, CFX, third-party providers
	Power requirements	210 V, 60 Hz, 3P/PE +/- 10%; average power consumption 1.1 kWh; 4 - 6 bar working pressure
	System dimensions	997 mm x 1756 mm x 1753 mm (39.3" x 69.1" x 69") (W x D x H)
	Weight	Approx. 1070 kg (2359 lbs)