

S3088-III

Automatic optical inspection
of electronic assemblies –
high performance and economical

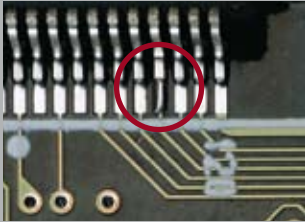


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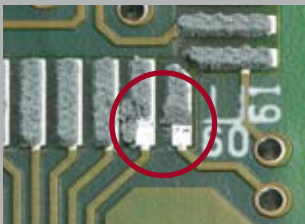
Efficient electronic assembly inspection

Highest inspection depth
High speed solder joint inspection
User-friendly operation

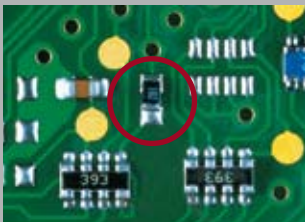
Inspection range:



Solder joints:
e.g. QFP coplanarity



Paste printing:
e.g. Smearred paste print



Solder defect:
e.g. Chip tombstoning



Assembly:
e.g. Diode polarity

**Inspects large printed circuit boards
up to 508 mm x 508 mm (20" x 20")**

Highest inspection depth with 8M cameras

Superior lifted lead detection

**Fast program generation
with EasyPro3D**

Selective high resolution

Full color evaluation

**System self-test ensures
stable inspection performance**

**Zero defect through
Integrated Verification**

**Additional options:
Rework and post-classification,
off-line programming and
VPC evaluation**

**Worldwide, competent service
on-site, by hotline and remote maintenance**

Reliable and economical defect detection with fast process optimization are the challenges facing modern electronics production. EasyPro3D and Integrated Verification provide the S3088-III with the highest inspection depth and optimal support for operation. Inspection program creation is fast and easy. With Viscom's Superior Lifted Lead Detection and OnDemandHR function even the most difficult inspection requirements, including solder joint analysis of fine-pitch ICs and 01005 chip components, can be achieved without defect escapes. This optimally equips the electronics manufacturer – whether an EMS enterprise or small operation – for IPC-compliant electronics production.

S3088-III – the economical inspection system for the highest throughput with zero-escape strategy

The S3088-III is deliberately focused on economical electronic assembly inspection – from prototype to large series. Printed circuit boards up to 508 x 508 mm (20" x 20") can be inspected.

The high performance **Viscom 8M camera technology** also fulfills extreme cycle time requirements. With the OnDemandHR function, resolution can be switched between 23.4 and 11.7 $\mu\text{m}/\text{pixel}$, so even the smallest defects on 01005 components are detected. In addition, the inspection system provides full color evaluation, even for high resolution and angular images.

The **operator interface Viscom EasyPro3D** is based on a model-oriented component library and intuitive programming. The key functions of EasyPro3D are a user-friendly operator interface, intelligent data import and the comprehensive **IPC-compliant inspection library**, which enables inspection plan creation in only three steps. Viscom's **integrated defect verification** greatly simplifies the reduction of false alarms while ensuring virtually zero defect wescapes. The integrated defect verification tool uses stored image data of classified defects and golden boards to simulate a test run with all validated production results. Inspection program quality can be confirmed at any time, whether for in-house production needs or for documentation during customer audits. At the same time, the Self-TestTCM (**Technical Chain Management**) automatically monitors the calibration and important system components during operation to ensure consistently stable inspection performance by the system. Downstream data evaluation with Viscom post-classification, **VPC statistical process control** and EasyPro3D is a powerful tool for real-time process optimization. Viscom uses all current data interfaces for data exchange needed for traceability.

Customer support and service with Remote Diagnosis, Hotline and on-line support offer individual and efficient support. The Internet Customer forum provides inspection pattern downloads and current information.



OnDemandHR-function



Color analysis of Copper Exposure

Technical Specifications

S3088-III

Application

Placement and solder joint inspection (reflow and wave soldering)

Camera technology

Orthogonal camera module 8M-CBW (white LEDs)

Field of view	57.6 x 43.5 mm
Resolution	23.4 μ m (standard), 11.7 μ m (high) switchable with OnDemandHR
Number of mega pixel cameras	4

Angular view camera module

Resolution	16.1 μ m (standard), 8.05 μ m (high) switchable with OnDemandHR
Number of mega pixel cameras	4, 8 (option)

Software

User interface	Viscom EasyPro3D/EasyAuto
VPC	Viscom VPC (statistical process control), open interface (option)
Verification and repair station	Viscom S6002 HARAN
Remote diagnosis	Viscom SRC (option)
Programming station	Viscom PST34 (option)

System computer

Operating system	Windows XP®
Processor	Intel® Core™ 2 Duo processing technology

PCB handling

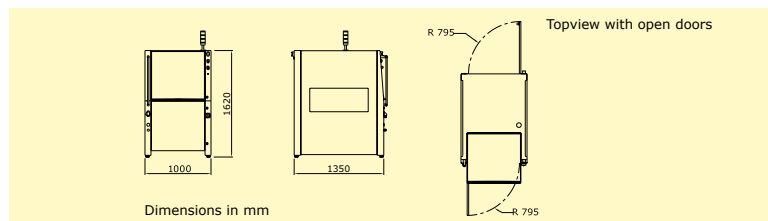
PCB dimensions	Max. 508 x 508 mm (20" x 20") (L x W)
PCB support	Optional
Transport height	850 to 960 mm \pm 30 mm (32.3" x 39")
Width adjustment	Automatic with set-up
Handling unit	Gantry system with synchronous linear motors
Transport concept	Single track transport
PCB clamping	Electrical
Upper transport clearance	35 mm (1.38")
Lower transport clearance	40 mm (1.57") (50 mm (1.97") optional, without stopper and PCB support)

Inspection speed

20 – 40 cm²/s

Other system data

Interfaces	SMEMA, SV70, customer specific
Voltage	190V to 600V, 50/60 Hz, 3P/N/PE, consumption 2.5 kVA/h
System dimensions	1000 x 1350 x 1620 mm (39.4" x 53.1" x 63.8") (W x D x H)
Weight Max.	750 kg (1653 lbs)



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