

## Precise In-Line Inspection of Wire Bonds

The S6053BO-V system from Viscom features the highest precision in automated optical wire bond inspection. With individually configurable transport options, ceramic substrates of different characteristics and sizes are reliably inspected.

Wire bonds and SMD assembly are inspected together. High-resolution cameras capture all bond sites and wires. The Viscom inspection software is designed for maximum inspection depth and accuracy. Wire path, dies and component position are only a part of the inspection. It makes no difference whether the bonds are of copper, aluminum or gold, or whether ribbon or thick or thin wires are involved. Even wire dimensions of 17  $\mu\text{m}$  are reliably inspected. The system also detects damaged and misplaced components.

Inspection programs can be created and optimized off-line on a Viscom programming station. This is supported by image material from a previously captured video base. The standard library contains inspection patterns for die, ball-wedge, wedge-wedge and security bonds. The inspection scope can be individually extended. In conjunction with a high-power Viscom SPC evaluation, numerous conclusions regarding the process can be made.

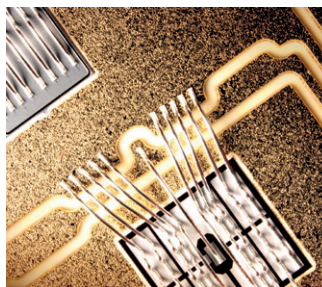
**High-end solution for in-line inspection**

**Individually configurable transport**

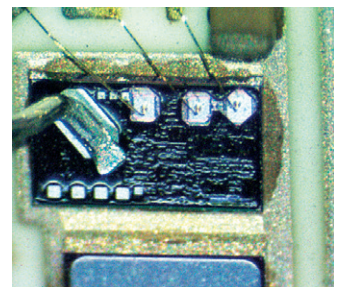
**Compatible with all Viscom bond camera modules**

**Extremely high accuracy and inspection depth**

**Remote diagnosis, hotline and on-site service**



Defect detection on multiwire connections



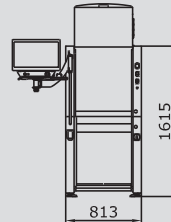
Inspection of different wire diameters

**Bond**

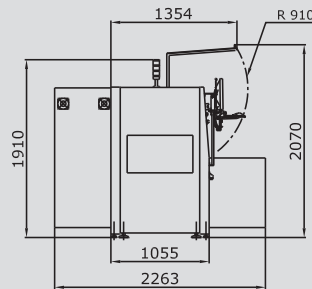
# Technical Specifications



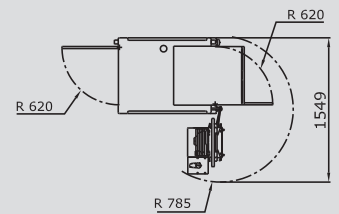
Front view



Side view



Top view



Dimensions in mm\*

		S6053BO-V STC	S6053BO-V DTC	S6053BO-V DSC
	Transport system	Single track	Double track	Dual shuttle
	Inspection concept	Single inspection		
Inspection scope	Bond	Ball bond, wedge bond, wire, die/SMD, ribbon		
Camera technology	<b>8M1 VHR module*</b>			
	Number of modules per machine	1*		
	Number of cameras	1		
	Pixel size	5 µm/pixel or 2.5 µm/pixel*		
	<b>8M1 SRW bond module*</b>			
	Number of modules per machine	1*		
	Number of cameras	1		
	Pixel size	10 µm/pixel*		
	<b>XM HR bond module*</b>			
Number of modules per machine	1*			
Number of cameras	1			
Pixel size	4.5 µm/pixel*			
Software	User interface	Viscom EasyPro		
	SPC	Viscom SPC (statistical process control), open interface (optional)		
	Verification station	Viscom HARAN		
	Remote diagnosis	Viscom SRC (software remote control) (optional)		
	Programming station	Viscom PST34 (optional)		
System computer	Operating system	Windows®		
	Processor	Intel® Core™ i7		
Substrate handling	Max. substrate size	280 mm x 300 mm (11" x 11.8") (L x W)*	280 mm x 130 mm (11" x 5.1") (L x W)*	210 mm x 130 mm (8.3" x 5.1") (L x W)*
	Transport clearance	860 - 1180 mm ± 20 mm (33.9" - 46.5" ± 0.8")		
	Substrate clamping	Vacuum or mechanical clamping		
	Upper transport clearance	15 mm or 35 mm (0.6" or 1.4") (depending on camera technology*)		
Inspection speed	> 1000 wire bond connections/min., depending on inspection object characteristics			
Other system data	Positioning/handling unit	Synchronous linear motors		
	Interfaces	SMEMA, SV70, customer-specific		
	Power requirements	400 V (other voltages on request), 3P/N/PE, 8 A, 4 - 6 bar working pressure		
	System dimensions	813 mm x 1615 mm x 1055 mm (32" x 63.6" x 41.5") (W* x H x D)	W: max. 1000 mm (39.4")*	
	Weight	800 kg (1764 lbs) (with transformer)		

\*Standard configuration, other camera technologies, sizes, options, and boundary conditions on request.

You will find our international subsidiaries and representatives under:

[www.viscom.com](http://www.viscom.com)