

**SCREEN**

For continually evolving color visual inspection solutions

Color Final Visual Inspector

**FP 8200/8200AL**

*Automatic Final Visual Inspector*



The FP-8200 and FP-8200AL incorporate original color camera systems and color image processing technologies that improve upon the FP-8000 series, which has already established an outstanding reputation in final visual inspections. The newly developed high performance lens and evolved image processing technologies dramatically increase image definition, and the latest software features enhanced image processing and inspection algorithms to

enable high precision inspections based on this improved image clarity.

Featuring a powerful new blower, these models can now accommodate an even broader range of circuit board shapes, including slit circuit boards.

The FP-8200 series is ideally suited to final visual inspections for today's diversifying printed circuit boards.

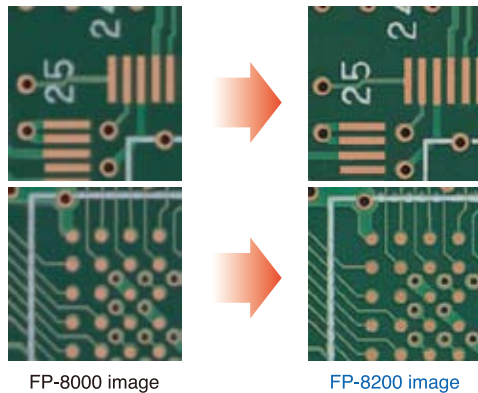
# Color Final Visual Inspector FP-8200/8200AL

## FEATURES

### 1. New high performance lens dramatically increases image definition

The newly developed high performance lens and evolved image processing technologies dramatically increase image definition in comparison to the FP-8000.

This results in improved detection performance and greater visibility of verification images.



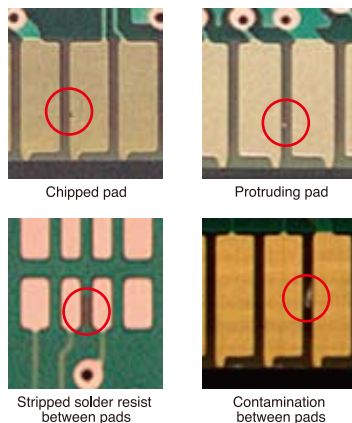
FP-8000 image

FP-8200 image

### 2. Upgraded software substantially improves detection capabilities

Inspection logic has also been upgraded to enable accurate inspections of images with increased definition. The FP-8200 series is now fully capable of handling inspections of terminals and surrounding components, which are subject to particularly stringent requirements and difficult detection conditions.

This new software also features enhanced process management functions, allowing the FP-8200 series to act as an advanced process monitor.



Chipped pad

Protruding pad

Stripped solder resist between pads

Contamination between pads

### 3. New viewing windows in AL (Auto Loader) supply and storage units

New windows installed in the circuit board pickup and storage units enable the operator to check the status of circuit board transport and other operations at any time. (The red circle in the photograph indicates the window in the storage conveyor unit.)



### 4. Powerful new blower

As a result of increased suction in circuit board transport, the 8200 series can now accommodate an even broader range of circuit board shapes, including slit circuit boards.

## SPECIFICATIONS

Type	Standard resolution	Resolution for automotive PCBs
Board size	50 x 50 to 250 x 350 mm	50 x 50 to 199 x 350 mm
Board thickness	FP-8200 : 0.3 – 2.4 mm (approximate) FP-8200AL : 1.0 – 2.4 mm (approximate)	
Supply/storage stack	FP-8200 Supply : 1 set in supply stocker (up to 270 mm tall) Storage : 3 sets in storage stocker FP-8200AL Supply : 3 sets in supply conveyor (up to 300 mm tall) Storage : 3 sets in storage stocker and 1 set in storage conveyor	
Camera resolution	40μm	30μm <sup>*1,3</sup>
Light source	Reflective fluorescent lamp <sup>*4</sup>	
Tact time <sup>*2</sup>	Approx. 6 sec. (for 250 x 330 mm inspection area)	Approx. 6 sec. (for 199 x 245 mm inspection area)
Inspectable materials	Metallic areas (gold, copper, solder), solder resist, silk-screened areas	
Dimensions	FP-8200 : (W)2,020mmx(D)2,074mmx(H)2,000mm FP-8200AL : (W)2,688mmx(D)2,264mmx(H)2,000mm	
Weight	FP-8200 : Approx. 1,800kg FP-8200AL : Approx. 2,200kg	
Power supply	Single-phase 1φ200V 8kVA (50/60Hz, Type D grounding)	

<sup>\*1</sup> A camera resolution of 25 μm is also available as an option (for boards from 50 x 50 to 163 x 350 mm in size).

<sup>\*2</sup> Tact time varies with board design as well as board size.

<sup>\*3</sup> The newly developed lens is only compatible with resolution for automotive PCBs (30 μm).

<sup>\*4</sup> This series comes with two types of lamp sockets: a fluorescent lamp socket for enhanced inspection of metallic areas, and a standard lamp socket for solder coating inspections. Lamps can be switched to ensure optimum lighting for the type of board being inspected.

We reserve the right to alter product design and specifications without prior notice.

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