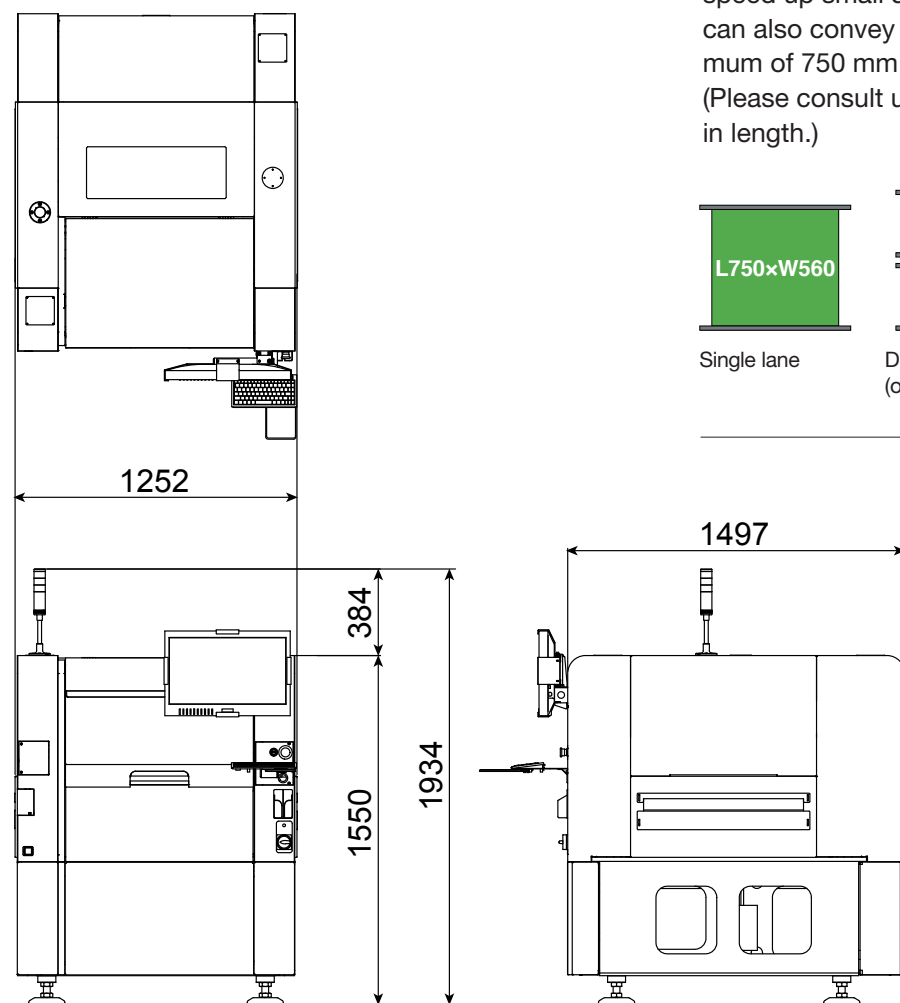


**Specifications**

**YSi-V**

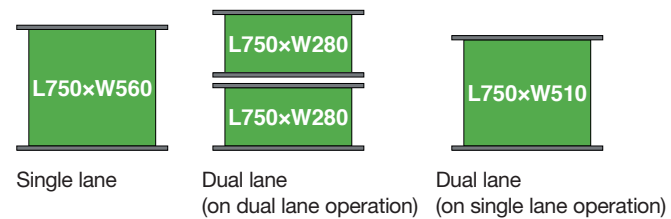
PCB size range	L 610 x W 560mm (max) to L 50 x W 50mm (min) (Applicable for L 750mm longer PCB (Option))
Resolution	Visible spectrum (red/green/blue) / infrared: 12µm / 7µm (Selection)
Target items	Components status after mounting, components status and solder status after hardening
Power supply	3-Phase AC 200/208/220/230 V +/-10% 50/60 Hz
Air supply source	0.45 MPa or more in clean dry state
External dimension	L 1,252 mm x W 1,497 mm x H 1,550 mm (not including projections)
Weight	Approx. 1,300 kg

**External dimensions**



**Productivity-boosting dual system**

Capable of parallel dual-lane board conveying to speed up small & mid-sized board inspections and can also convey large longitudinal boards to a maximum of 750 mm in length (option).  
(Please consult us for board sizes exceeding 750 mm in length.)



Specifications and appearance are subject to change without prior notice.

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**YAMAHA TRUSTED TECHNOLOGY**

Yamaha Motor Intelligent Machinery (IM) is a subsidiary of Yamaha Motor Company.



**YSi-V**



**High-end Hybrid Optical Inspection System (AOI)**

Unique features ensure accurate inspection results and high efficiency, for optimum productivity.

2 Dimensional inspection  
High-speed, high-resolution  
12 megapixel camera

3 Dimensional Inspection  
Height Measurement,  
solder slope + direction detection

4-Directional angular camera  
Eliminating additional  
process steps

Board Size:  
Single lane: 750 x 560 mm (L x W)  
Double lane: 2x 750 x 280 mm (L x W)

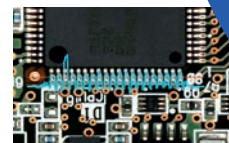
Photo shows the state with various options installed.

## 2D High-speed, high-resolution 2-dimensional inspections

### High-resolution imaging with 12 megapixels

YSi-V utilizes industry's first 12 megapixel camera along with a telecentric lens supporting a high number of pixels. It also incorporates a high-speed signal processing control system and other features to achieve an inspection capability twice that of ordinary units along with an expanded visual field, superior image resolution, and high speed.

Provides optimal inspection technique selectable from 5 different methods



#### Laser

Detects height.  
Example: Floating lead detection.  
Note: Laser is provided as an option.



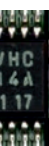
#### Shape

Extracts sloped sections.  
Example: Detection of solder fillet.



#### Color

Can isolate features of a desired color.  
Example: Detection of exposed copper.



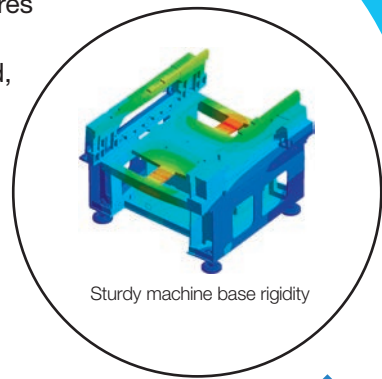
#### Brightness

Selective brightness adjustment of captured image enhances inspection for missing components, polarity, component ID by character recognition.



#### Infrared

Shows white components on white resist.



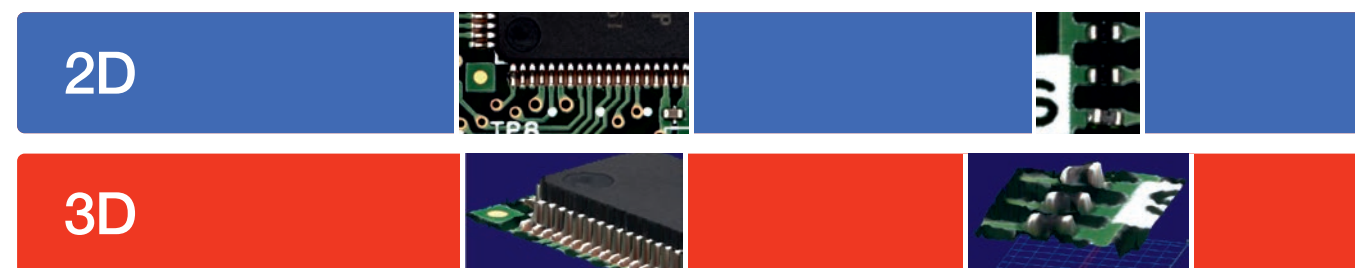
Sturdy machine base rigidity

## 3D Height, and sloped surface 3-dimensional inspections (option)

YSi-V makes high-speed height measurements within an entire field of view, in one batch. This 3D imaging reliably detects floating components that a 2D inspection can miss. Detection is also improved where color tones between board and components are similar or when there is interference between silk-screen and pattern. YSi-V 3D inspection can also detect the slope gradient and direction, and make pass-fail contour judgements.



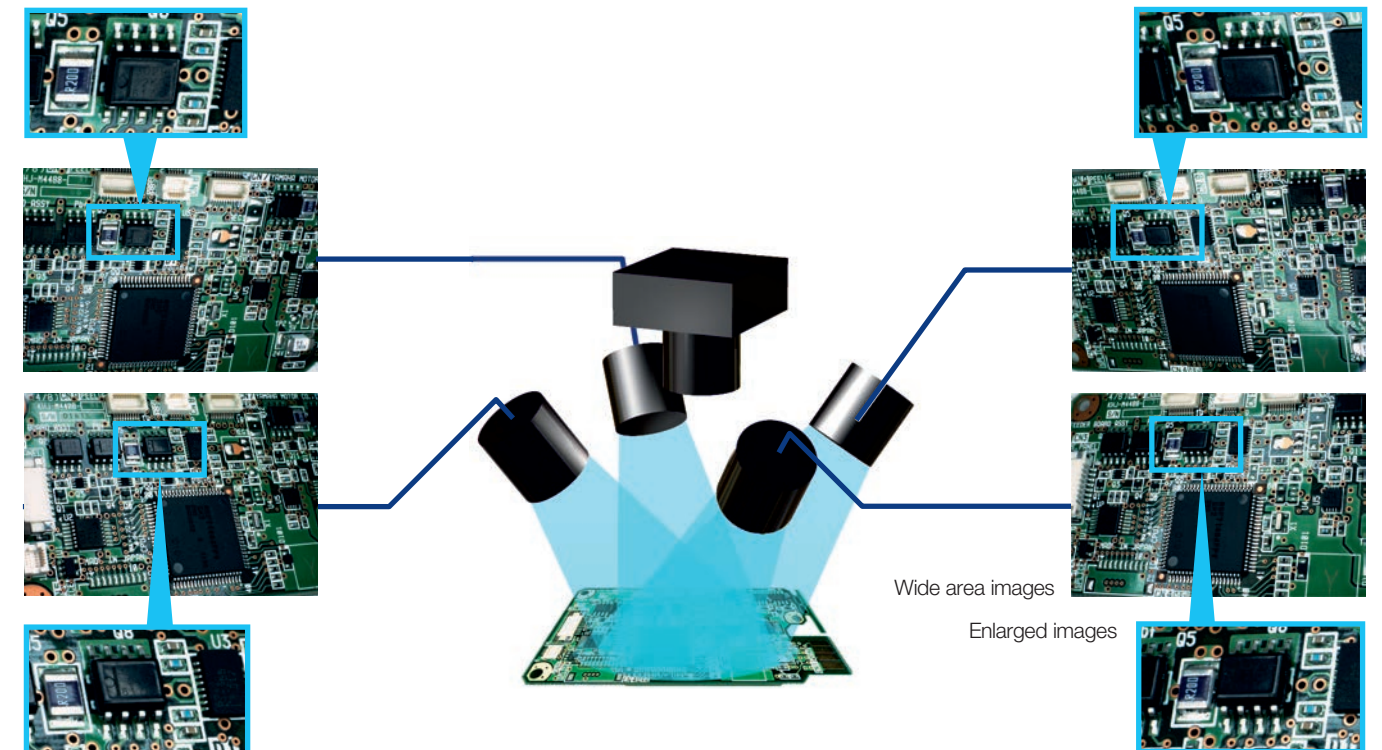
### 2D and 3D inspection of leaded packages and chip components



## 4V 4-Direction angular camera (option)

Besides 2-dimensional inspection images, YSi-V can capture images of all features within a wide field of view from four directions, using unique in-house technology. You can isolate a component and inspect as if

looking at the board from four different angles, but without removing the board from the line. This minimizes human contact with boards, thereby eliminating errors and reducing the number of process steps.



### Quality Assistance, using mobile Pass/Fail judgement (option)

If a defect is detected, this system identifies the mounter responsible and feeds back error information. That mounter is automatically set to cycle-stop and data such as the setting position, head number and nozzle type appears on the monitor.

The error information and an image of the defect are sent by wireless LAN to the operator's mobile terminal. The operator can communicate pass/fail judgement directly from the mobile device, to resume normal line operation.

