

Technical information

L-02: High-magnification & high-precision 3D appearance defect detection

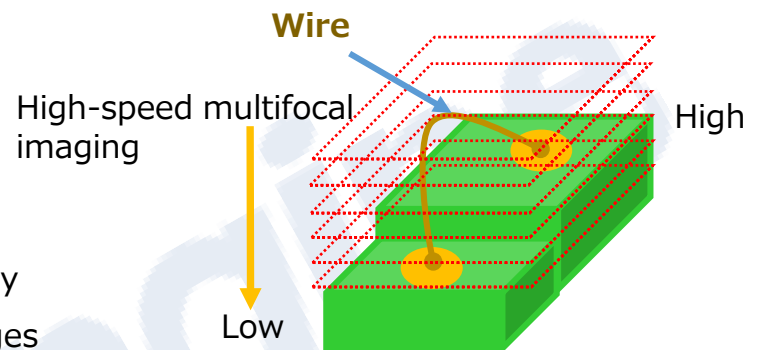
● Laser source device for 5G communication Defect inspection for curved wires and foreign objects in the module



Can detect abnormal wire curves up to *7.6μm
(*Distance between the base line and the top)

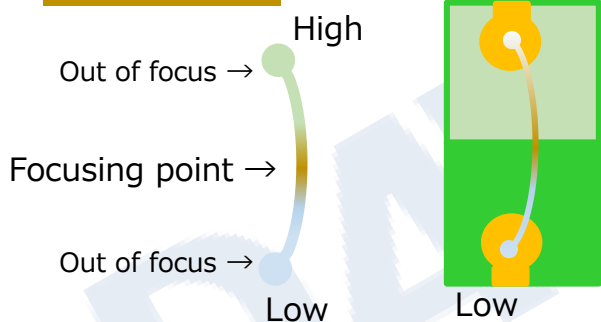
[Inspection & measurement logic - (i)]

- High-speed multifocal imaging automatically extracts the focus images of the starting, top, and ending points of a wire, respectively
- High-speed 3D imaging of the wire by combining deep focus images

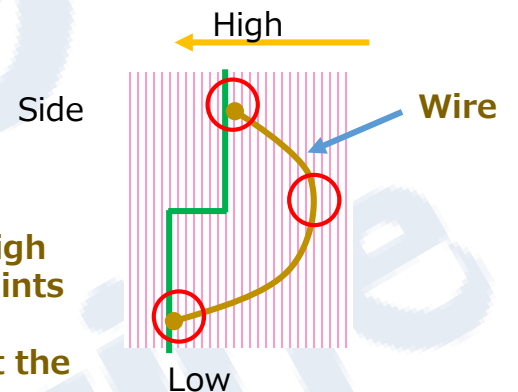


Combining deep focus images

Color legend



A wire strung between the high and the low points forms a clear linear image at the focusing point.

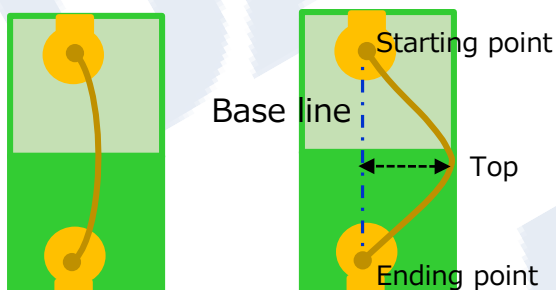


✓ Please consult your sales rep about the actual image of the above description.

Wire curve determination

[Inspection & measurement logic - (ii)]

- Can detect wire curve defects by calculating the distance between the top and the base lines connecting the starting and the ending points of a wire
- Multifocal imaging enables **following-up if the wire height changes**



[Normal]

Curve defect

Value output result (actual)

(The table below is a capture screen of the measurements when a defect is detected.)

数値出力(キャリブレーション)の数値結果	
▼ 数値出力(キャリブレーション)	
▼ 出力値	Double[] Array
[0]	7.63752193307748

Distance between the top and the base line:
7.64 [μm]

Detection time including image processing: 390 [ms]
(rough calculation)