

Benchtop High Resolution, High Speed Automated Optical Inspection System

BF-Comet

Line-Ups for Flexible Use

Saki new desktop AOI, BF-Comet, has two models. BF-Comet10 is designed for high density mounting PCB with 01005(0402) chips. It has 10 μ m resolution and stable scanning unit. BF-Comet18 is designed for high volume manufacturing. It has 18 μ m resolution and high speed scanning hardware. Both models have newly designed LED lighting unit that enables highest throughput of PCBA inspection.

High Throughput

BF-Comet has Saki's original alternate scanning system that captures several lighting images in one scanning. Newly developed color capturing system enable to make scanning speed twice faster than previous model. It takes only 7 seconds to capture M-size board [250mm \times 330mm] by BF-Comet18, and 11 seconds with precise 10 μ m resolution by BF-Comet10. Overall tact time including inspection also become shortened dramatically.

New Interface

Renewed user interface makes it easier to set up inspection data by using pre-installed Saki standard library. And optional new function KPK, that finds out the difference between surface of the board and the surface of component automatically, simplifies to detect missing component. This realizes time reduction for inspection data making at launching production.

Advantage of Line Scan Visual Inspection

Extra components on the board can be detected only by setting up one inspection window on the whole board. It is realized by the advantage of line scan method.

Coaxial Overhead Light

Soldering condition is inspected by illuminant irradiation of coaxial overhead lighting. Inspection is not affected by shadowing by neighboring tall components, therefore same library is available at any location on the board.

Flexibility

BF-Comet has 40mm clearance at the top side of the board and 60mm at the bottom side. It enables most of the PCBs with tall components. In addition, BF-Comet can be used in any stage of the PCB production process from post-print, post-mounter, and post-flow / re-flow, or manual mounting.

Traceability

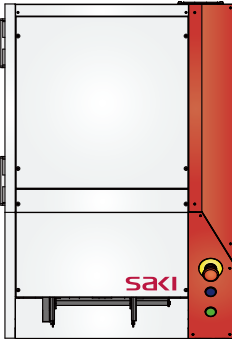
Optional function of BF-Comet can read all types of Barcode and 2D code on the board. Inspection output is reported with code number. It enables easy SPC data handling and log data management on manufacturing lines.



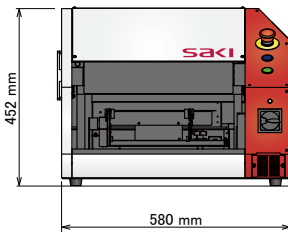
BF-Comet10

Dimensions

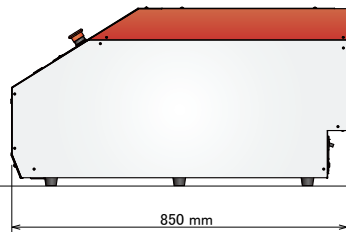
■ **BF-Comet10**



Top View

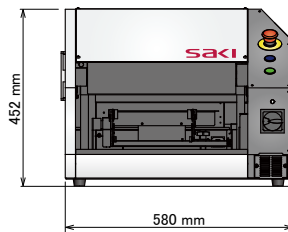


Front View

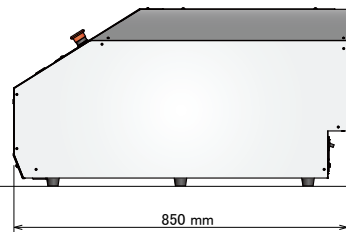


Side View

■ **BF-Comet18**



Front View



Side View

System Specifications

Model	BF-Comet10	BF-Comet18
Resolution	10µm	18µm
Board Size	50×50 - 250×330mm, 2×2 - 10×13in.	
Board Thickness	0.6 - 2.5mm, 24 - 100mils	
Board Warp	+/-2mm, 79mils	
PCB Clearance	Top: 40mm, 1.57in. Bottom: 60mm, 2.36in.	
Rotated Component Support	Available for 0 - 359°rotation (unit of 1°)	
Inspection Categories	Presence/Absence, Misalignment, Tombstone, Reverse, Polarity, Bridge, Foreign material, Absence of solder, Insufficient solder, Lifted lead, Lifted Chip, and Fillet defect. Each defect name can be changed freely by system function.	
Tact Time*1 *2 (250×330mm)	Approx. 18sec.	Approx. 13sec.
Image Scanning Time*1 (250×330mm)	Approx. 11sec.	Approx. 7sec.
Camera (Image Processing)	Line color CCD camera	
Lighting	LED lighting system	
Operating System	Windows XP English Version	
Optional System	BF-Editor / BF-RP1 / BF-View	
Optional	2D Barcode Recognition, Journal Printer, OK/NG Signal Out	

*1 If PCB size is smaller than 250x330mm, Image scanning time will be shorter than these values.
*2 Including Image Scanning Time.

System Requirements

Electric Power Requirement	Single Phase ~100 - 120V / 200 - 240V +/-10%, 50/60Hz	
Power Consumption	450VA	400VA
Air Requirement	Not needed	
Usage Environment	15°C(59F) - 30°C(86F) / 15 - 80%RH (Non-condensing)	
Dimensions W x D x H (Main body)	580 × 850 × 452mm, 22.84 × 33.47 × 17.80in.	
Weight (Excluding Monitor and PC)	Approx. 83 Kg, 183lbs	Approx. 80 Kg, 177lbs

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