

Benchtop High Resolution, High Speed Automated Optical Inspection System

BF18D-P40

High Resolution Imaging System

With a superior resolution of 18 μ m and a scanning line color CCD camera, the BF18D-P40 provide accurate and stable inspection results. Solder fillets on components as small as the high density mounted 0201 (0603) chip, as well as IC's with 0.4mm pitch lead are easily inspected and analyzed.

High Accuracy

The BF18D-P40 inspection system utilizes a *Telecentric Lens System* (2) and an *Automatic Digital Brightness Control System* (3) for improved repeatability and increased accuracy of the inspection result. For Character Recognition, Polarity, and Solder Fillet, both AOI systems employ *Brilliant MLT Lighting* (4), which helps capture a clearer PCB image.

Industry-Leading High Throughput

To maximize throughput, the BF18D-P40 use Saki's unique *Alternating Lighting Digital Scanning System* (1) to scan and capture images of the entire PCB in a single pass. With the scanning sequence optimized to dramatically reduce inspection tact time, Saki AOI's offer industry-leading throughput.

Flexibility

The PCB clearance, 40mm at the top and 60mm at the bottom, is designed to allow inspection of PCBs with tall components. In addition, the BF18D-P40 can be used in any stage of the PCB production process from post print, post pick & place, and post-flow / reflow.

Traceability

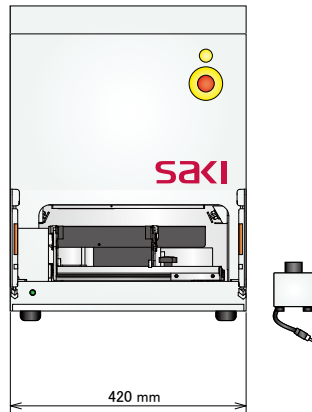
Barcode recognition allows for easy PCB inspection data management. Optional 2D barcode capability (QR, data matrix).

1. The alternating lighting system, in conjunction with the system's line scanning capability, enables the system to capture multiple images of the entire PCB in a single scan.
2. The Telecentric lens system was designed to compensate for image distortion for more accurate detection.
3. Pixel brightness is automatically adjusted to produce a clearer image.
4. The system employs 3 types of high intensity LEDs: Top Light, Full-Color Side Light, and Low Light.

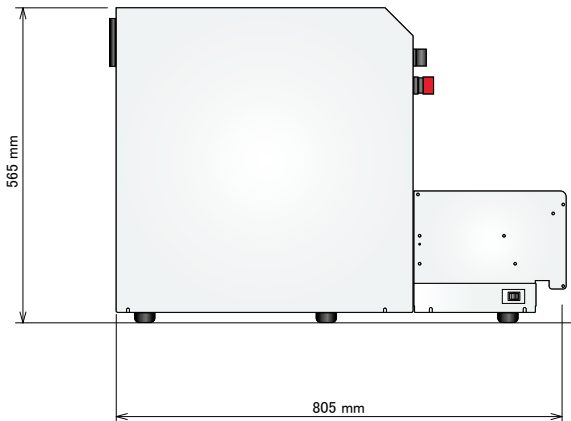


Dimensions

Front View



Side View



System Specifications

Model	BF18D-P40
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, Tomb stone, 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.
Scanning Time	Approx. 19sec. (250×330mm)
Calculating Time	*Approx. 3 sec./10,000 inspection windows
Resolution	18μm
Camera (Image Processing)	Line color CCD camera
Lighting	LED lighting system
Operating System	Windows XP English Version
System Option	BF-RP1 / BF-Editor / BF-View
Option	2D Barcode Recognition, Journal Printer

*Calculating time depends on inspection algorithm.

System Requirements

Electric Power Requirement	Single Phase ~100 - 120V / 200 - 240V +/-10%, 50/60Hz
Power Consumption	400VA
Air Requirement	Not needed
Usage Environment	15°C(59F) - 30°C(86F) / 15 - 80%RH (Non-condensing)
Dimensions W x D x H	420 × 805 × 565mm (Main body) 16.54 × 31.69 × 22.24in
Weight	Approx. 45 Kg (Excluding Monitor and PC)

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