Seamark ZM

BGA REWORK STATION ZM-R730A

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ZM-R730A

● A device featuring high-definition optical alignment and intelligent control, highly stable temperature control, and a movable infrared temperature zone, facilitating the maintenance of large and irregular PCBAs.

●This is a mid-range automated model among Zhuomao Technology's BGA rework equipment. It can automatically desolder, solder, mount, and automatically identify mounting height, etc.

●Suitable for the repair of BGA/POP/CSP/LED/QFN/CSP/LGA/Micro SMD/MLF (Micro Lead Frames) and other packaged components.

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Basic Parameter

Project	Parameter
Power Supply	AC 380V±10% 50/60 Hz
Total Power	Max 7500W
Pressure Air Flow	5 - 8 bar, 100 l/min
Heater Power	Upper Temp. Zone 1450 W, Lower Temp. Zone 2000 W , IR Temp. Zone 4000 W
Top Heater Temp. Range	450° C
Temperature resolution of top heater	Upto 2°C
No. of Bottom & IR Lamps	Min. 8 Nos
Temperature Control	K-type thermocouple closed-loop control: independent upper and lower temperature control, accurate temperature range ±1℃
PCB Mounting	V-shaped slot + universal clamp + laser red dot positioning
Accuracy Top Heater Temp.	Min.+/- 1 % @400°C
Resolution of motion system	±0.001mm
PCB Size	Max 645×520 mm Min 6×6 mm
Preheating Zone Size	Max 435×420mm
Number of Camera Lenses	4 Lenses
Camera System	5 Mega Pixel
Suitable For BGA Size	Max80×80mm Min 3×3 mm
Thermocouple	5 个 + 1 (Thermocouple)
External Dimension	L1000×W840×H950 mm
Machine Weight	130kg
Profile Created	25 Zone
Min. Size Component	Min. 0.5mmX 0.5mm
Max. Size Component	Max. 74mmX74mm
Max. Component Weight	Max. 80gms
System power consumption of the machine	5500 VA +/- 10 %

ZM-R730A BASIC FUNCTION

1. Three independent temperature zones with independent temperature monitoring for each zone; automatic protection and alarm in case of abnormalities.

2. The upper and lower hot air zones utilize a ceramic honeycomb heating system; the IR zone uses a carbon fiber heater with a protective mesh, resulting in higher heating efficiency.

3. Integrated heating and placement head design enables automatic removal and welding, and includes a built-in feeding device.

4. The equipment includes a built-in micro vacuum generator.

5. The upper and lower hot air temperatures are supplied by an integrated axial flow fan, eliminating the need for an external air source.

6. A 10-inch embedded touchscreen HMI with PCL control displays real-time temperature curves and allows for analysis and saving of these curves.

7. Ten-segment temperature control; can save 250 sets of temperature curves for easy retrieval of historical parameters.

8. The V-shaped slot made of high-temperature resistant aluminum alloy, along with universal clamps and support bars, ensures that the PCB does not deform.

9. The bottom infrared heating area can be individually controlled according to the actual size of the PCB, enabling energy saving.

10. Automatic curve analysis and automatic curve report generation.

11. Utilizes a high-precision Omega K-type sensor from the USA for precise temperature detection at various points on the PCB and BGA, with automatic curve analysis.

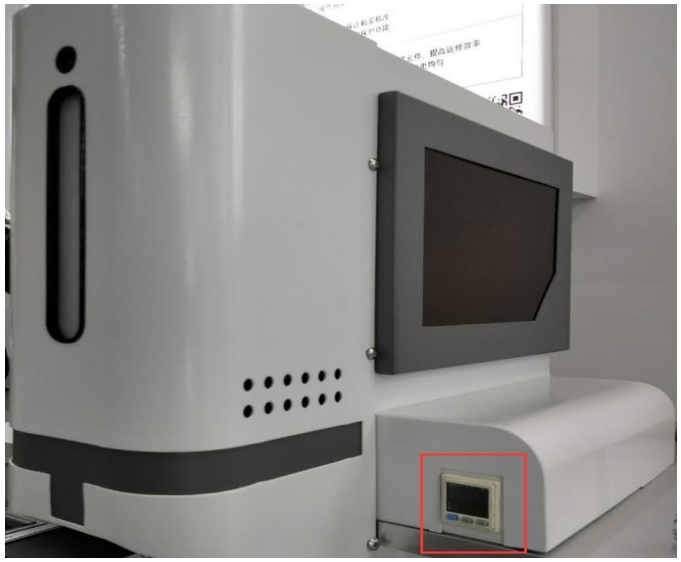
12. HDMI high-definition optical alignment system, imported CNB camera from South Korea, and a 15-inch high-definition display.

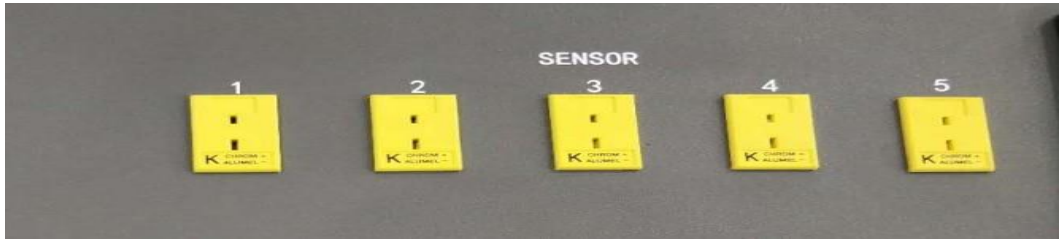
13. Equipped with a laser positioning device for convenient and rapid confirmation of the BGA locations to be soldered4. During the alignment process, for larger chips, the alignment lens of the equipment can be moved forward, backward, left, and right by clicking on the touch screen to observe the edge of the BGA from all directions, eliminating "blind spots" and achieving precise placement of components.

ZM-R730A Highlights

Highlight 1: Real-time monitoring of placement pressure

10-inch touch interface

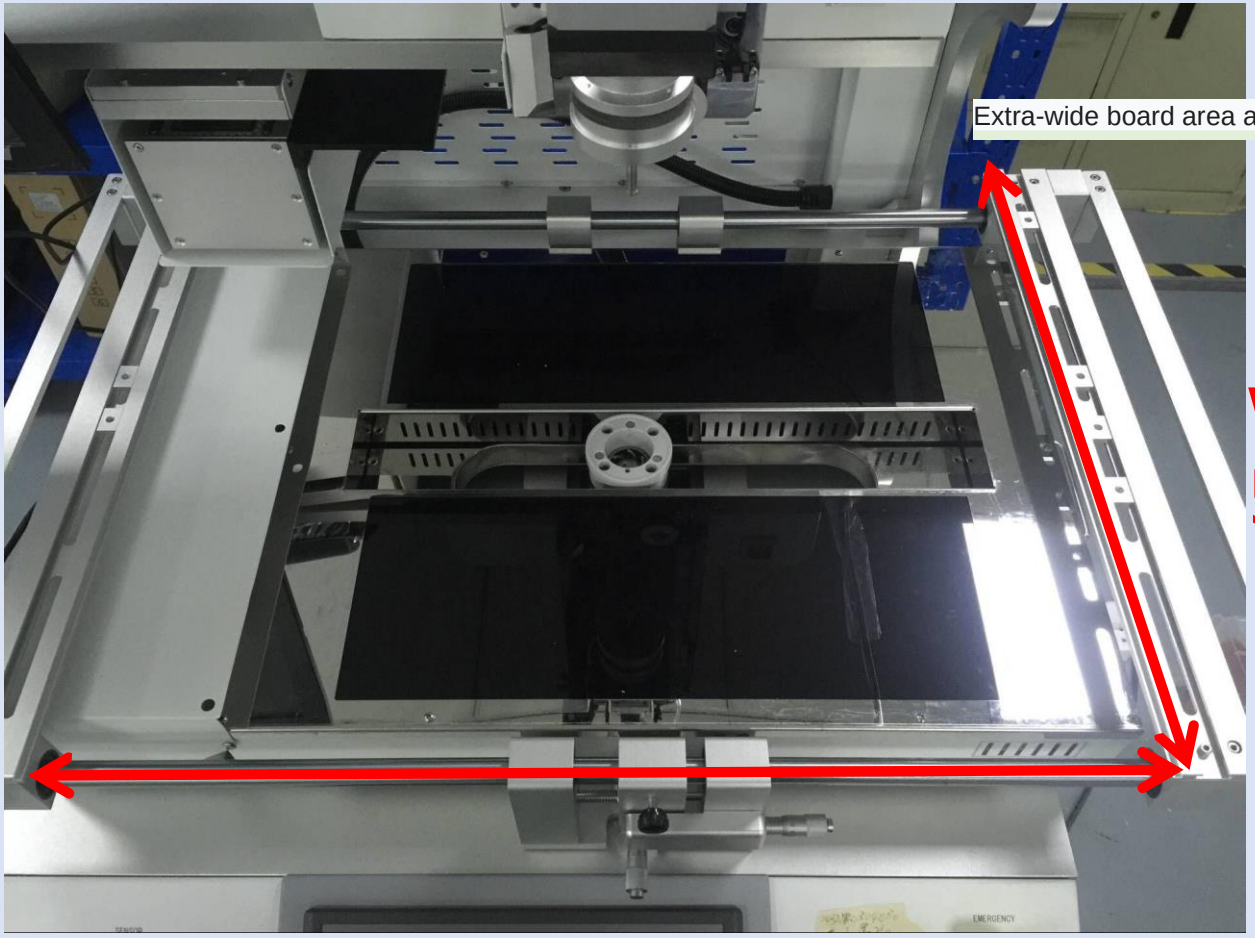




The equipment comes with a pressure gauge to monitor placement pressure.

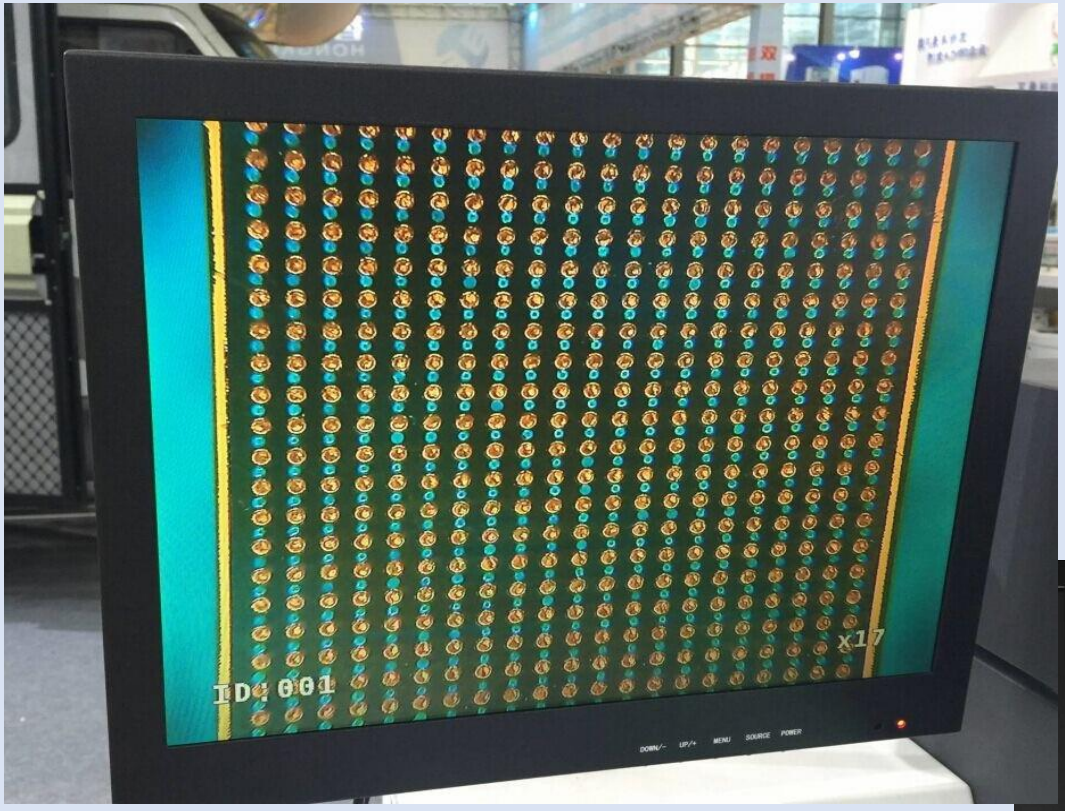
Five external temperature measurement ports & meeting the requirements of various furnace temperature profile measurement processes.

Highlight 2: Large PCB platform size, wide adaptability.



The infrared heating zone uses imported German carbon fiber heating tubes, resulting in faster and more even heating. Combined with a microcrystalline glass panel, it effectively prevents components from falling out, ensuring safety and reliability.

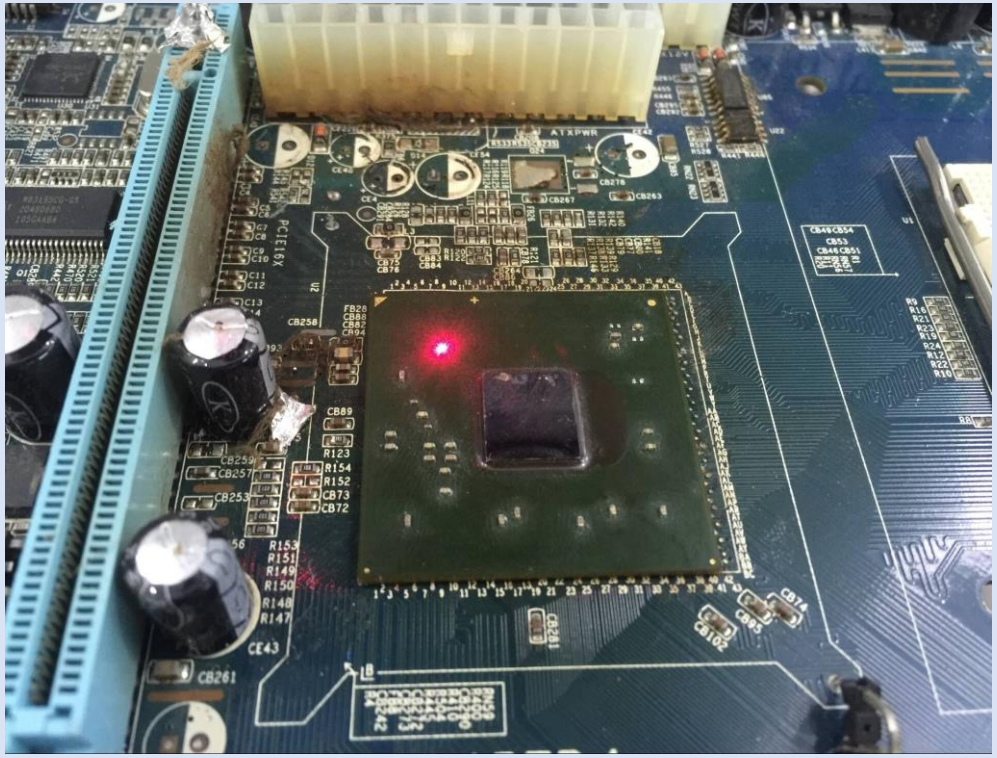
Highlight 3: High-definition optical alignment system

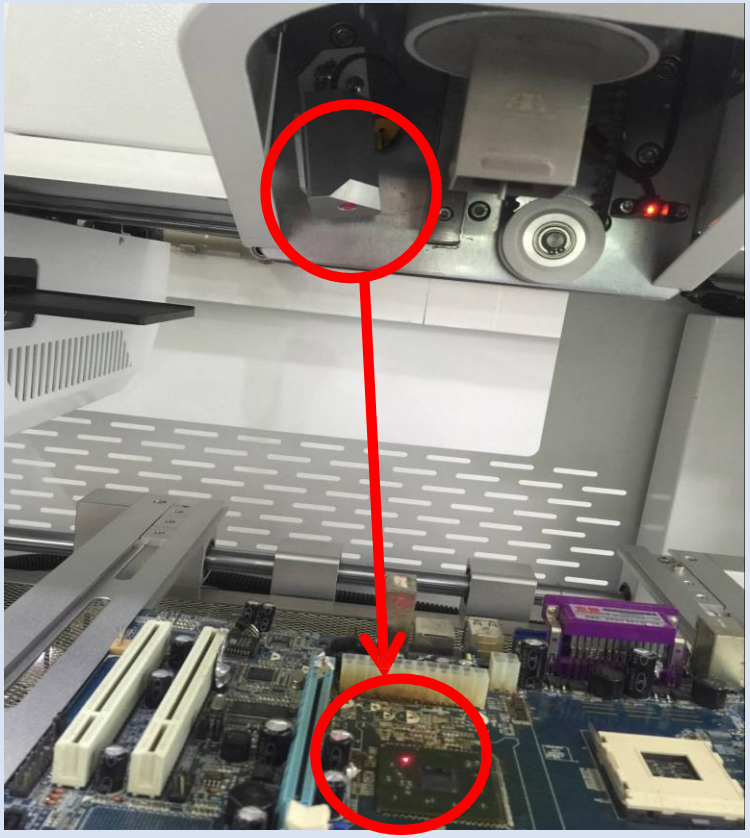


High-definition optical alignment system, touchscreen control

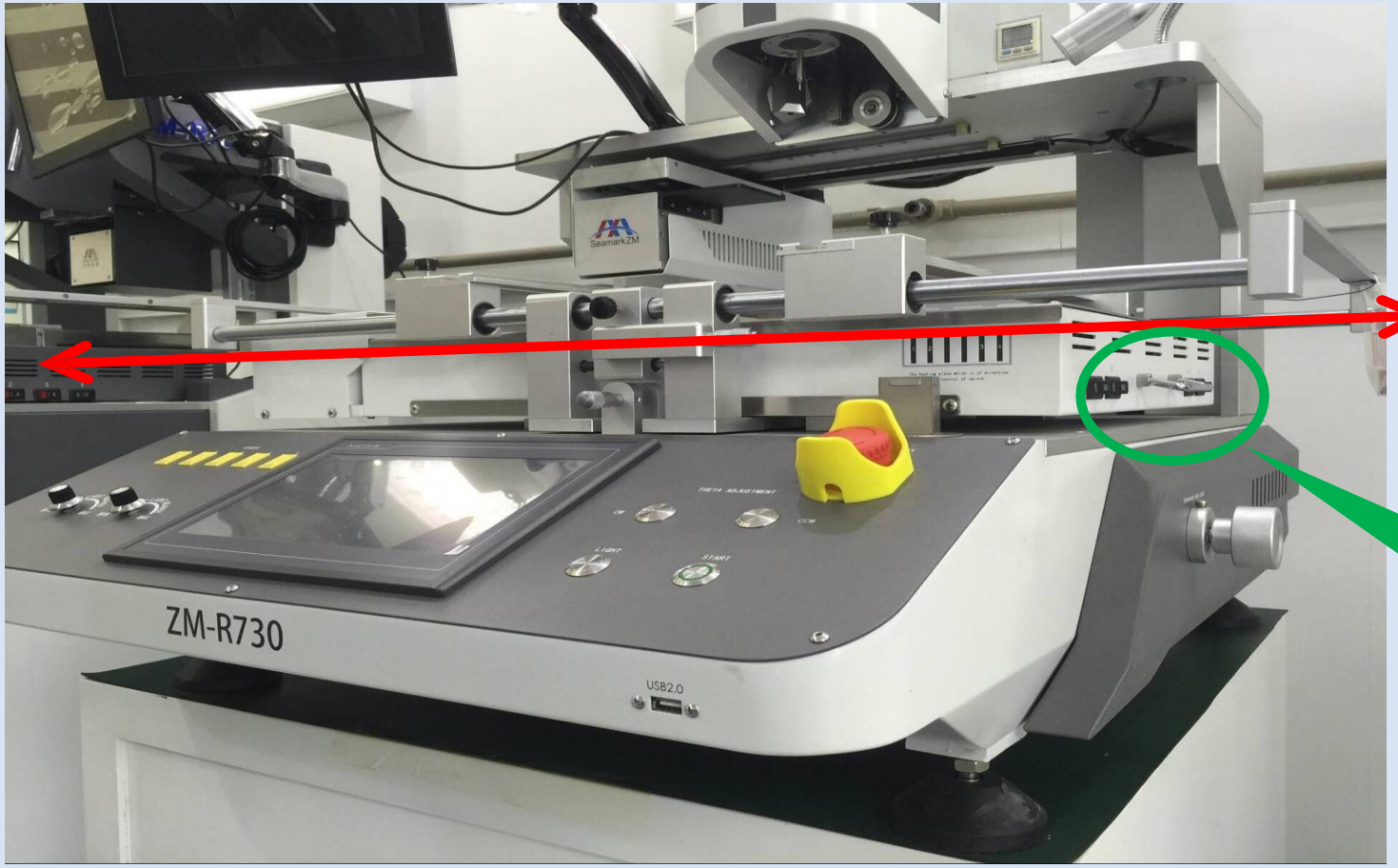
Highlight 4: Laser red dot positioning for quick and easy confirmation of BGA location.

Laser red dot positioning allows for quick location of BGA positions during PCB placement. The red dot indicates the center position of the upper and lower nozzles.





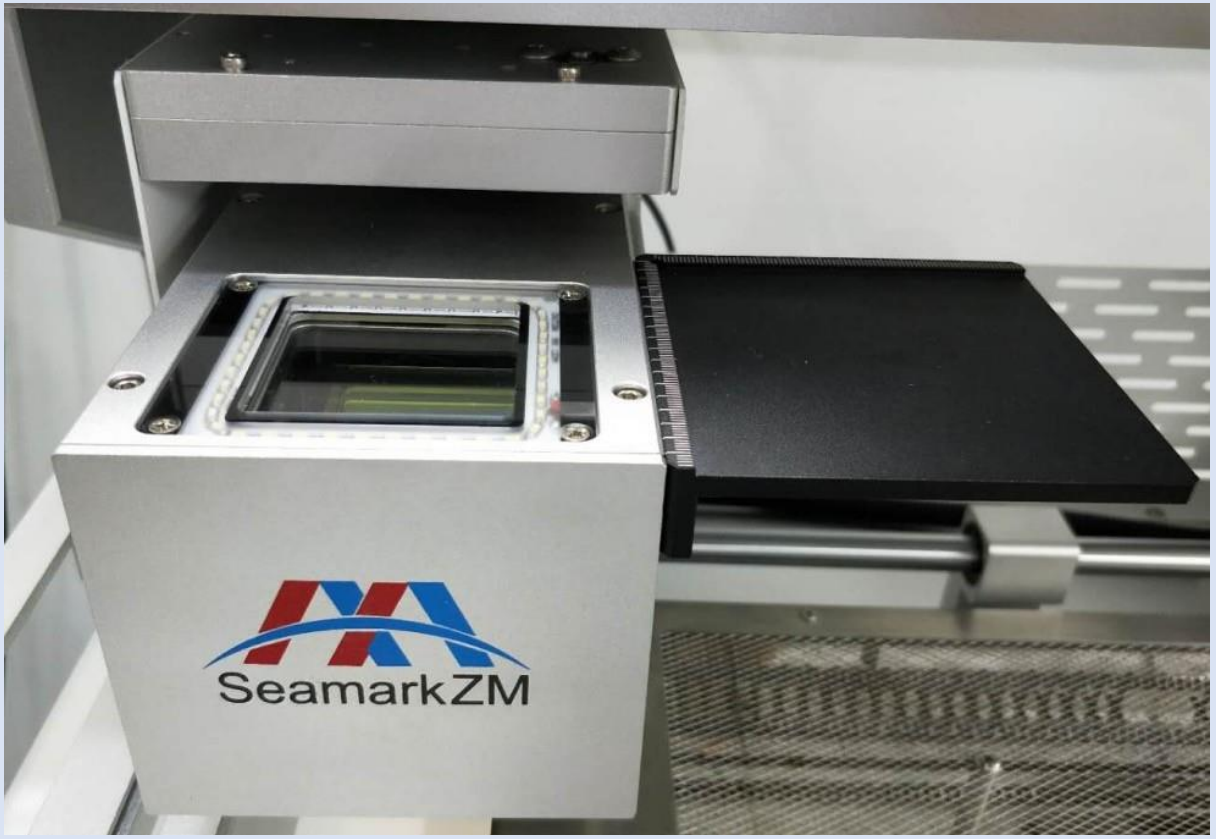
★Highlight five: The platform can move left and right, providing a solution for reworking components on the edges of large PCBs.



The handle can be pushed and pulled left and right to help move

The infrared preheating zone can be moved left and right, facilitating the repair of large PCBs.

★Highlight 6: Self-contained feeding device, saving manpower and time.



The equipment features automatic feeding, intelligent settings, and simple operation