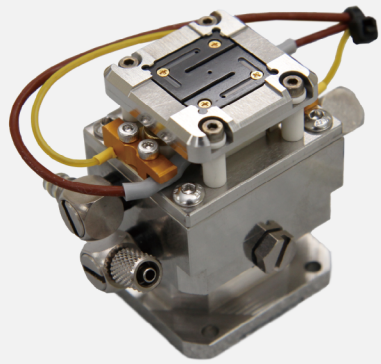
Pulse Heater

Through rapid heating and cooling technology, the Pulse Heater enables fast and repetitive temperature control between RT and 400°C. It plays an essential role in semiconductor packaging processes that require the bonding of semiconductor components or substrates. Due to its fast thermal cycling, energy efficiency, and minimal thermal distortion to surrounding areas, this heater provides improvement of overall process quality and yield.

Applications	Advanced Packaging	Thermo-Compression Bonding (TCB)	Flip-Chip	High Bandwidth Memory (HBM)



Pulse Heater

Manufacturing Specifications

Inspection Items		Specifications
Dimension	Size	□16mm
	Parallelism	~ 5μm
	Flatness	~ 2μm
Power Consumption	Without Attachment	160W
	With Attachment	270W
Temperature Uniformity		Maximum 400.8°C
		Minimum 399.1°C
Service Temperature		400°C
Heating Rate	100°C → 400°C	1.7sec
Cooling Rate (Air Pressure 0.5Mpa)	400°C → 100°C (AlN Attachment)	1.7sec (Without Attachment)
		4.8sec (With Attachment)
Overshoot		Maximum 2°C
Resistance		7.1Ω

Stage Heater

Bonding occurs on this heater module within semiconductor packaging equipment.
It provides a vacuum function to hold and a heating function to preheat the wafer.

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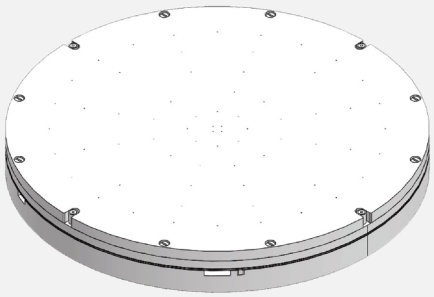
Manufacturing Specifications



Stage Heater

Operating Temperature
<150°C

Temperature Uniformity
≤±1%

Materials
AlN

Flatness
<2μm

Advanced Packaging | the future with BOBOO HITECH

With new technologies such as AI, 5G, IoT quickly approaching, the demand for high-performance semiconductor devices is soaring high. Advanced Packaging refers to innovative technology that goes beyond conventional packaging techniques, enhancing the performance, power efficiency, and miniaturization of semiconductor chips. As the demand for smaller, more powerful, and more efficient semiconductor chips grows, advanced packaging plays a crucial role in overcoming the limits of Moore's Law and traditional transistor scaling.