Panasonic CONNECT

A flip-chip bonder for high-speed, high-quality placement of bare ICs for cutting-edge devices

MD-P300 Flip-chip Bonder

The MD-P300 Flip-chip Bonder is process-flexible, combining flip-chip and thermosonic bonding in a single, small-footprint solution.The MD-P300 contributes to the cost-effective production (high yield, high throughput) of value-added devices. The MD-P300 can achieve high speed and high accuracy bonding through its low gravity point and lightweight bonding head. The MD-P300 supports 300 mm (12") wafers, and is an ideal solution for COB hybrid assembly in combination with an in-line Panasonic SMT placement machine.The MD-P300 is capable of fast cycle times and a placement accuracy of +/-5 µm at 0.5 seconds per IC (dry run) - with thermosonic processes at 0.65 seconds, including process times.

Key Features

- The basic structure comprises fixed-point pickup and placement that supports supply of wafers up to ⌀300 mm
- Process change is possible by switching the bonding tool(Compatible with GGI/C4/TCB)
- High-precision placement of ± 5 um is achieved using the placement nozzle where the chip backside recognition result obtained by a flip camera is feed-forwarded to handling
- For productivity, high-speed placement of 5,500 CPH (production output per hour) is achieved

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https://ap.connect.panasonic.com/id/en/md-p300-flip-chip-bonder

Model Number	NM-EFF1C
Placement Accuracy	XY (3σ at Panasonic conditions) : ±5 µm[*1]
Substrate dimensions	L 50 mm × W 50 mm to L 330 mm × W 330 mm (Heating specifications : L 330 mm × W 220 mm)
Die dimensions (mm)	L 1 mm × W 1 mm to L 25 mm × W 25 mm (Thermosonic : L 7 mm × W 7 mm)
Die Supply	Wafer frame 12 inches (Option : 8 inches)
Bonding Load	VCM head : 1 N to 50 N (Option : 2 N to 100 N)
Head Heating	Thermosonic : Up to 300 ℃
Substrate Heating	Constant heating , Up to 200 ℃ (Heating bonding stage specifications : Max.substrate size L 330 mm × W 220 mm)[*2]
Power Source	3-phase AC 200 V ±10 V , 50 / 60 Hz , Up to 4 kVA (Up to 7 kVA for heating specification)[*3]
Pneumatic Source	0.4 Mpa , 50 L / min (A.N.R.) (Up to 150 L / min for full-featured machine including cooling air)
Dimensions (mm)	W 1 380 mm × D 1 640 mm × H 1 430 mm (without loader / unloader)
Footnote Description	Please refer to the specifications on details. 1. The described productivity and placement accuracy may dier depending on the conditions of use. 2. Maximum setting temperature dier depending on the maximum substrate size. Please contact us individually. 3. 3-phase 208 / 220 / 380 / 400 / 415 / 480