

High Precision, Multi Function Mounter

SM451/SM451DH

The SM451N is a High Precision Multi Functional Machine equipped with a High Precision Force Control Head that is applicable to a variety of odd shaped parts including 0402 (01005 inch) fine chips, 57 x 42mm IC parts, long connectors, bare chips, PIP inserted parts, etc.

In addition, it is capable of supporting parts of up to 42mm in height and can place special parts by supporting a Gripper Nozzle, POP Applicability, Lead Bending Check, Rear Side Reflection Recognition, etc.



SM451

- Placement Speed : Chip1608 8,500 CPH (Based on IPC9850)
QFP 4,000 CPH (Based on IPC9850)
- Placement Accuracy : $\pm 50\mu\text{m}@ \mu+3\sigma$ /Chip
 $\pm 25\mu\text{m}@ \mu+3\sigma$ /QFP
- Applicable Parts : 0402(01005 inch) ~ 57 x 42mm
(H28mm, Option : 42mm)
- Applicable PCB : Max. 610(L) x 460(W) x 1 Lane
- Applicable to Electrically Driven Feeders and Pneumatic Feeders

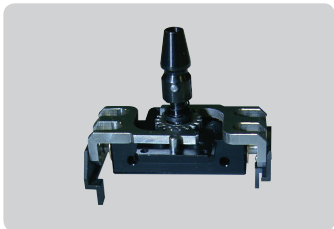
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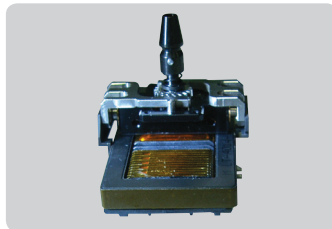


Reinforced Compatibility with Odd Shaped Parts

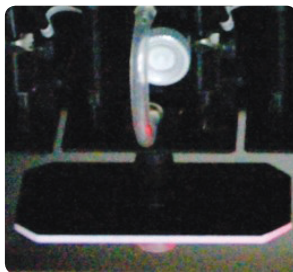
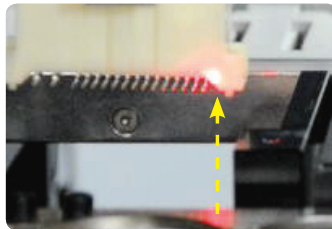
In order to reinforce the compatibility with odd shaped parts, the following functions devices and functions have been added: gripper nozzles, a function to check part bending using a laser sensor and a rear side reflection recognition function, as well as a PIN recognition function for the placement of PIP inserted parts.



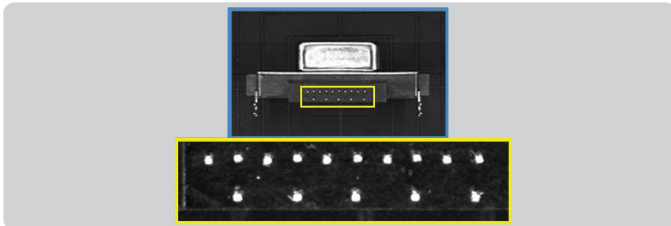
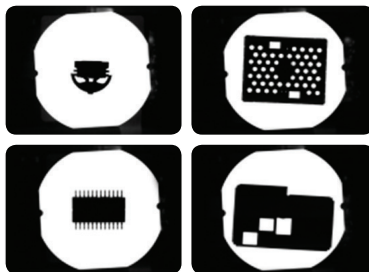
Gripper Nozzle



Lead Bending Check



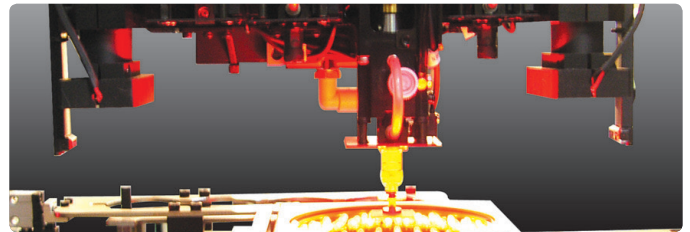
Rear Side Reflection Recognition



PIN Recognition

High Precision Force Control System

Allows the placement of PIP inserted parts, bare chips, etc., which require precision placement by Z-axis by applying a Z-axis force control system that controls a wide range of force from 3N to 50N.



Force Control Head

Specifications



Model		SM451	SM451DH
Number of Spindles		4 Spindles x 1 Gantry	4 Spindles x 2 Gantry
Tact Time		0.9 sec/QFP (sF Vision)	0.7 sec/QFP (Stage Vision)
Placement Accuracy	QFP	±25µm	±30µm
	Size	Max. □55mm, L100mm Connector	
Applicable Part	Height	H28mm (Option : 42mm)	
	Applicable PCB	460 x 420mm (Option : 610 x 460mm)	50 x 50 ~ 460 x 250mm (2 Pieces)
Force Control		3N ~ 50N	
Feeder Slot		60ea (Option : 120ea)	Max. 26ea
Utility	Voltage (Frequency)	3phase AC 220V±18V/200±18V / 208±19V / 220±20V / 240±22V / 380±25V / 415±28V (50/60Hz, 3 Phase)	
	Air Supply	5.0 ~ 7.0kgf/cm ²	
	Power Consumption	Max. 4.7kVA	Max. 6.0kVA
	Air Consumption	220Nℓ/min	450Nℓ/min
External Dimension (mm)		1,650(L) x 1,680(D)	1,650(L) x 2,250(D)



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• Please note that specifications and product information in this catalog are subject to change without notice.