

# Advanced Flexible Mounter **SM482**

As a flexible component placer for odd-shaped parts is reinforced at SM482 based on the platform of SM471. With a head with one gantry and 6 spindles, SM481 can be used up to  $\square$ 55mm IC parts. It supports a polygon recognition algorithm to provide an optimum solution for odd-shaped parts. SM481 improved actual productivity and placement quality by using high speed and high precision electrically driven feeders. Furthermore, since it is designed to handle both electrical feeder & pneumatic feeder, it maximizes the customer's operational convenience.



- 27,000 CPH (Optimum)
- 1 Gantry x 6 Spindles/Head
- Part Size : 0603 (0201 inch) ~  $\square$ 55mm (H15mm)  
0402 (01005 inch) (Option),  
~ L75mm Connector
- PCB Size : 460(L) x 400(W) (Standard)  
Max. 1,200(L) x 510(W) (Option)
- High Speed, High Precision and Electrically Driven Feeder
  - Automatic pick-up position alignment function
  - Compatible with SM pneumatic feeders
- New Vacuum System and Optimized Pickup/ Placement Motion
- SMART Feeder
  - World's first Auto Loading and Auto Splicing

Advanced Flexible Mounter

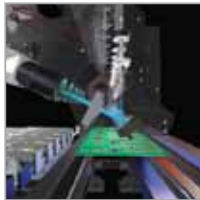
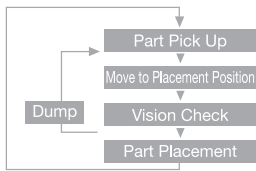
# SM482



**Achieves a High Speed Part Placement Speed of 27,000 CPH**

Achieves the highest placement speed among the same class chip placers by using a flying head mechanism with 6 spindles as well as optimized pickup/placement motion

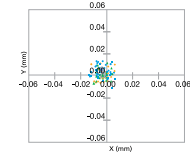
Since it allows part recognition without stopping after part pickup by using its original On-the-Fly image recognition technology, SM482 model maximizes the part placement speed by minimizing the time to move between the pickup position and placement position and by reducing the recognition time to almost zero.



## Placement accuracy correction system

Chip  $\pm 50\mu\text{m}$  (Cpk  $\geq 1.0$ )

The newly upgraded placement accuracy calibration system automatically checks and corrects the pickup point offset, head offset, C/V offset, etc. to allow reliable part placement.

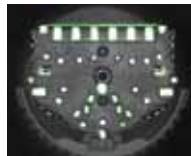


Absolute Accuracy of  $\pm 50\mu\text{m}$  (Cpk 1)

## Reinforced Applicability to Parts and PCBs

- Applicable to 0603 (0201 inch) ~  $\square 55\text{mm}$  (H15mm), ~L75mm Connector, and BGA/CSP parts by default (0402 (01005 inch) Option)
- Applicable to Max. 1,200(L) x 510(W) (Option) PCBs for long boards applied to LEDs and displays
- Polygon recognition function

The polygon recognition function extracts the shape of a part to recognize the entire part shape. Therefore, it provides the optimized solution to irregular and odd-shaped parts.



## Uses a New Vacuum System

- Achieves stabilized part pickup and minimized air consumption by using a vacuum pump

※ Air consumption is less than 50Nl/min when using a vacuum pump.

**Electrically Driven High Speed and High Precision Feeder**

## Electrically driven SM feeder

- Allows integrated use of 0603/2P/4P
  - With a function to automatically align the pickup position between feeders to improve the simultaneous pickup rate.
  - Able to set various part supply speeds to improve the stability of part supply.
  - Automatic feeding pitch recognition function
- ※ Compatible with SM pneumatic feeders



## SM smart feeder

- The world's first feeder with Auto Splicing and Auto Loading functions
  - Maximizes work convenience and actual productivity by automating the splicing process for part reel replacement normally performed by hand.
  - Applicable to reels with a small quantity of parts
- ※ Compatible with SM pneumatic feeders



Present Reel  
New Reel

## Specifications

Model		SM482
Alignment		Flying Vision + Stage Vision
Number of Spindles		6 Spindles x 1 Gantry
Placement Speed		27,000 CPH (Optimum)
Placement Accuracy	Chip/QFP	$\pm 50\mu\text{m}$ @ $\mu+3\sigma$ /Chip, $\pm 30\mu\text{m}$ @ $\mu+3\sigma$ /QFP (Based on the standard chips)
	Flying Vision	FOV 16 (Option) FOV 25 (Standard)
Component Range	FOV 16 (Option)	0402 (01005 inch) ~ $\square 14\text{mm}$ IC, Connector (Lead Pitch 0.4mm) * BGA, CSP (Ball Pitch 0.65mm)
	FOV 25 (Standard)	0603 (0201 inch) ~ $\square 22\text{mm}$ IC, Connector (Lead Pitch 0.5mm) ~ $\square 17\text{mm}$ BGA, CSP (Ball Pitch 0.75mm)
	FOV 35 (Option)	~ $\square 32\text{mm}$ IC, Connector (Lead Pitch 0.3mm) * BGA, CSP (Ball Pitch 0.5mm) ~ $\square 55\text{mm}$ (MFOV)
Stage Vision	FOV 45 (Standard)	~ $\square 42\text{mm}$ IC, Connector (Lead Pitch 0.4mm) * BGA, CSP (Ball Pitch 1.0mm) ~ $\square 55\text{mm}$ (MFOV), ~ $\square 75\text{mm}$ Connector
	Max. Height	15mm
Board Dimension (mm)	Minimum	50(L) x 40(W)
	Maximum	460(L) x 400(W)      510(L) x 460(W) (Option) 610(L) x 510(W) (Option)
	PCB Thickness	0.38 ~ 4.2
Feeder Capacity		120ea / 112ea (Docking Cart)
Utility	Power	AC 200 / 208 / 220 / 240 / 380 / 415 V (50/60Hz, 3Phase) Max. 3.5kVA
	Air Consumption	0.5 ~ 0.7MPa (5 ~ 7kgf/cm <sup>2</sup> ) 180Nl/min, 50Nl/min (Vacuum Pump)
Mass		Approx. 1,600kg
External Dimension (mm)		1,650(L) x 1,680(D) x 1,530(H)



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