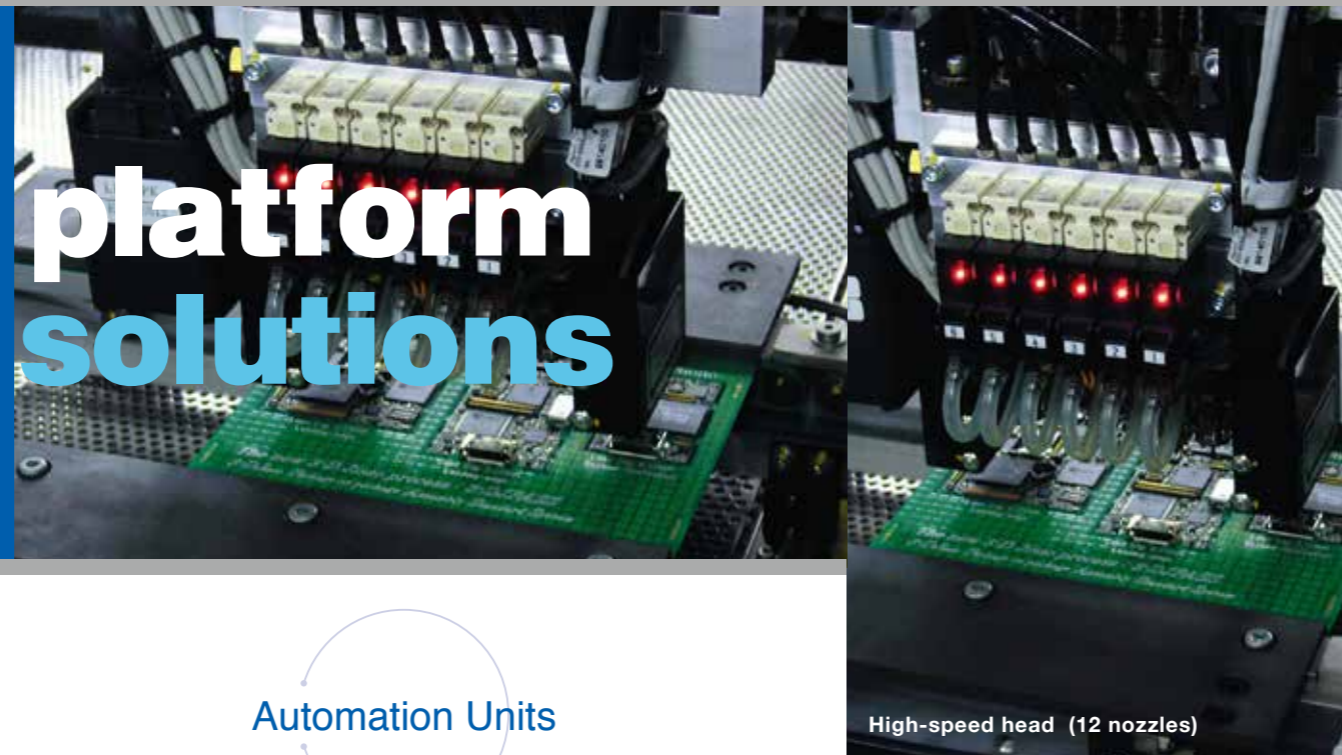


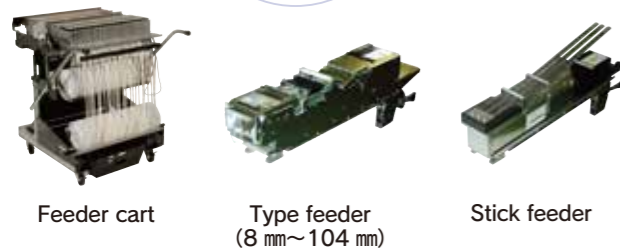


Our Solutions, Your Value

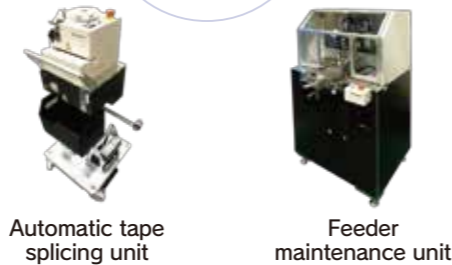
one platform solutions



Supply Units



Automation Units



High-speed head (12 nozzles)

Modular High Speed Placement Machine

With further increased productivity and enhanced component handling capabilities, the reliable, proven CM Platform has evolved to a placement machine that realizes excellent line balance and easier handling.



* It may not conform to Machinery Directive and EMC Directive in case of optional configuration and custom-made specification.

Model ID	CM602-L
Model No.	NM-EJM8A
PCB dimensions	L 50 mm × W 50 mm to L 510 mm × W 460 mm
●High-speed head	12 nozzles
Max. speed	100 000 cph (0.036 s/chip (Type A-2))
Placement accuracy	± 40 μm/chip (Cpk ≥ 1)
Component dimensions	0402 chip *5 to L 12 mm × W 12 mm × T 6.5 mm
●High-flexibility head	LS 8 nozzles
Max. speed	75 000 cph (0.048 s/chip (Type A-0))
Placement accuracy	± 40 μm/chip, ± 35 μm/QFP ≥ □24 mm, ± 50 μm/QFP < □24 mm (Cpk ≥ 1)
Component dimensions	0402 chip *5 to L 32 mm × W 32 mm × T 8.5 mm *8 When the generalized Ver.5 is optionally selected 0402 chip *5 to L 100 mm × W 50 mm × T 15 mm *6
●Multi-functional head	3 nozzles
Max. speed	20 000 cph (0.18 s/QFP (Type B-0))
Placement accuracy	± 35 μm/QFP (Cpk ≥ 1)
Component dimensions	0603 chip to L 100 mm × W 90 mm × T 25 mm *7
PCB exchange time	0.9 s (Board length : up to 240 mm Under optimum conditions)
Electric source	3-phase AC 200, 220, 380, 400, 420, 480 V, 4.0 kVA
Pneumatic source *1	0.49 MPa, 170 L /min (A.N.R.)
Dimensions	W 2 350 mm × D 2 290 mm *2 × H 1 430 mm *3
Mass *4	3 400 kg

*Values such as maximum speed and placement accuracy may vary depending on operating conditions. *Please refer to the 'Specification' booklet for details.
*1:Only for main body *2:Dimension D including direct tray feeder:2 565 mm *3:Excluding monitor and signal tower
*4:Standard configuration(excluding batch exchange cart and tray feeders. This may differ depending on configuration.
*5:The 0402 chip requires a specific nozzle/feeder. *6:When T is more than 11.5mm, special nozzles are needed.Please consult us separately.
*7:When T is more than 21 mm, special nozzles are needed.Please consult us separately.
*8:When T is more than 6.5 mm, special nozzles are needed.Please consult us separately.

Safety Cautions

- Please read the User's Manual carefully to familiarize yourself with safe and effective usage procedures.
- To ensure safety when using this equipment all work should be performed according to that as stated in the supplied Operating Instructions. Read your operating instruction manual thoroughly.



Panasonic Group products are built with the environment in mind.
<http://panasonic.net/eco/>



Panasonic Group builds Environmental Management System in the factories of the world and acquires the International Environmental Standard ISO 14001:2004.

Inquiries...

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GM+PLUS ver.5
 Generalized Ver.5 (Optional)
 High-flexibility LS 8 nozzles
 Newly optimized Ver.5 (Optional)
 High-speed 12 nozzles
 Model ID **CM602-L**
 Model No. **NM-EJM8A**

one platform solutions

for world-class manufacturing

A wide range of variations

The most suitable module can be selected to place components from microchips to odd-shaped components, as well as depending on the products and the production volume.
*Heads configuration can be changed after purchase.

Machine configuration

Direct tray feeder DT50S-20

- JEDEC trays are supported.
- Up to 20 types of trays can be stocked.
- Components can be supplied from trays during operation.

(Optional)

Configuration type		12 nozzles / 12 nozzles	12 nozzles / 8 nozzles	8 nozzles / 8 nozzles	12 nozzles / 3 nozzles	8 nozzles / 3 nozzles	3 nozzles / 3 nozzles
Head combination	A	Type A-2	Type A-1	Type A-0	—	—	—
	B	—	—	—	—	—	Type B-0
	C	—	—	—	Type C-1	Type C-0	—
Direct tray support	One side	D	Type D-3	Type D-2	Type D-1	Type D-0	—
		E	—	—	—	—	Type E-0
	Both sides	F	—	—	Type F-2	—	Type F-1

Improves actual productivity with lighter high-speed head and new optimization



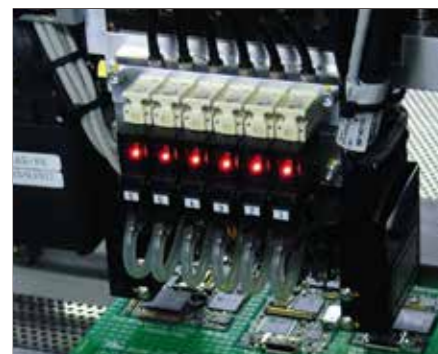
New high-flexibility 8 nozzles head Further component handling capability



Improves area productivity with compact feeder carts

Increases placement reliability by the 3D sensor

Multifunctional transfer unit supporting PoP and C4



Actual productivity (IPC9850)
69 500 cph (Type A-2)

	Tact time
Conventional Ver.4	Longer
Newly optimum* engine Ver.5	Shorter

Reduction

*PT200 Ver 7.70.00 or later

Lighter high-speed head and new manufacturing sequence optimization has increased productivity by **7 %** compared to the former optimization model Ver.4.

A wider range of components

High-flexibility head (LS 8 nozzles)

Component height 8.5mm → Component height 15mm (Optional)

Multi-function head (3 nozzles)

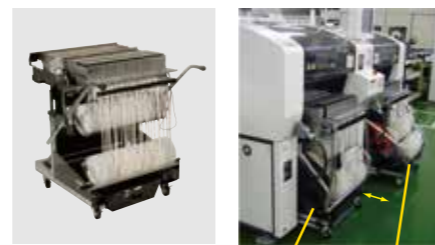
High-flexibility head (LS8 nozzles)

High-flexibility head (12 nozzles)

Component size(mm) □ 12 100×50 100×90

*Multi-functional heads (3 nozzles) are not available for 0402 components

The generalized Ver.5 (optional) expands existing component range. A wide variety of components, ranging from a 0402 chip to 50mm and a large size connector (100 × 50mm), have become mountable. The 3D sensor and direct tray feeder can be installed as before providing superior handling capabilities for odd-shaped components.



Feeder cart (Compact type) Compact type Conventional type

Area productivity (Type A-2)

15 800 ⇒ 18 500 cph/m²

Conventional type Compact type

200mm decrease in Feeder cart size

- Area productivity has increased by 17%
- Equipment maintenance has improved

*The Compact Feeder Cart has compatibility with Conventional Feeder Cart. Both types of the Feeder Carts can be used at the same time.

Head-installed type
For High-speed head (12 nozzles)

Chip thickness measuring sensor (Optional)

- Component bring-back check function
- Component thickness measurement function after components are changed
- Nozzle tip check function

Main body-fixed type
For High-flexibility head (LS8 nozzles)

Chip thickness measuring sensor (Optional)

Component thickness measurement function after components are changed

Board warp measuring sensor (Optional)

Placement height is controlled by measuring board warp

High-quality placement for IC component via the 3D sensor

Detects all leads of components (i.e.; QFP, SOP, SOJ)

BGA, CSP

- Detects solder ball position and measures ball height

Ball lacking CSP

3D sensor (Optional)

High-speed detection via batch scanning.

Highly versatile unit accurately transfers solder/flux for PoP top packaging/C4 mounting on the bump side

High-speed PoP placement

Transfer material auto-feed



Placement speed 0.65s/chip Transfer unit 4 components x two-time batch transfer (Optional) by high-flexibility heads (LS8 nozzle)

Maintenance through easy operation

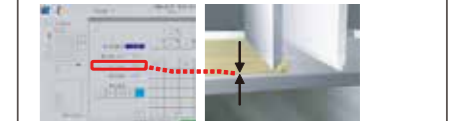


Squeegee Installation & removal without tools Scraper Installation & removal without tools

Changeable film thickness

Programmable squeegee gap using data

Changeable on film thickness each component



	Max. dimension
8 nozzles	□20mm
3 nozzles	□38mm

*High-speed heads (12 nozzles) are not supported.