



The NPM-W2 combines accurate component placement, precise SPI and AOI inspection and reproductive adhesive dispensing in one high-speed solution.

NPM-W2 / NPM-W2S

Higher productivity and quality thanks to the integration of printing, placement and inspection processes make the NPM-W2 one of the most flexible and versatile pick-and-place solutions on the market. This machine provides the user with a tool that allows him to choose between high speed or high accuracy, depending on the PCB requirements. In addition, the NPM-W2 is optimised for larger boards and larger components, such as PCBs up to 750 x 550 mm and components up to 150 x 25 x 30 mm (L,W,H). For high productivity, dual lanes can be used. Features The multifunctional NPM-W2 is equipped with a 16-nozzle head and can place 42,000 components. 120 feeders can be mounted. Additionally, the NPM-W2 can automatically inspect solder depots and components according to the production data. As a third function, the NPM can be fitted with the conventional HDF discharge mechanism, which ensures high-quality non-contact dispensing with a screw valve-dispenser.

Key Features

Equipped with a 16-nozzle head and can place 42,000 components

Automatic inspection of solder depots and components according to the production data

HDF discharge mechanism compatible, which ensures high-quality non-contact dispensing with a screw valve-dispenser



NPM-W2 / NPM-W2S

<https://ap.connect.panasonic.com/p/h/en/products/smart-factory/npm-w2-npm-w2s>

PCB dimensions (mm)	Single-lane
	Batch mounting
	2-position mounting
	Dual-lane
	Dual transfer (Batch)
	Dual transfer (2-position)
	Single transfer (Batch)
	Single transfer (2-position)
Placement Head max Speed	42 000cph (0.094 s/ chip)
Placement Head Placement Accuracy (Cpk\geq1)	$\pm 40 \mu\text{m}$ / chip
Placement Head Component Dimensions (mm)	0402 chip ~ L 6 x W 6 x T 3
Taping	Tape : 4 / 8 / 12 / 16 / 24 / 32 / 44 / 56 mm
	Max.120 (Tape: 4, 8 mm)
Dispensing Head	Dispensing speed:
	Dot dispensing: 0.16 s/dot (Condition : XY=10 mm, Z=less than 4 mm movement, No θ rotation)
	Draw dispensing: 4.25 s/component (Condition : 30 mm x 30 mm corner dispensing)*9
	Adhesive position accuracy (Cpk \geq 1)
	Dot Dispensing: $\pm 75 \mu\text{m}$ /dot
	Draw Dispensing: $\pm 100 \mu\text{m}$ /component
	Applicable components
Dot Dispensing: 1608 chip to SOP,PLCC,QFP, Connector, BGA, CSP	
	Draw Dispensing: BGA, CSP
Resolution	2D inspection head (A)
	18 μm
View Size (mm)	44.4 x 37.2
Inspection Processing Time	Solder Inspection 0.35s/ View size
	Component Inspection 0.5s/ View size
Inspection Object	Solder Inspection
	Chip component: 100 μm x 150 μm or more (0603 or more)
	Package component: $\phi 150 \mu\text{m}$ or more
	Component Inspection:
	Square chip (0603 or more), SOP, QFP (a pitch of 0.4mm or more), CSP, BGA, Aluminum electrolysis capacitor, Volume, Trimmer, Coil, Connector

Inspection Items	Solder Inspection: Oozing, blur, misalignment, abnormal shape, bridging
	Component Inspection: Missing, shift, flipping, polarity, foreign object inspection
Inspection Position Accuracy	± 20 μm
No of Inspection	Solder Inspection : Max. 30 000 pcs./machine (No. of components :Max. 10 000 pcs./machine)
	Component Inspection: Max. 10 000 pcs./machine