

# LED Board Assembly

Pick and Place Solutions

**LD812V4/LD812W3**

**LD806V4/LD806W3**

for LED Board Assembly

Applicable for:



Long LED board



Flexible PCB board



Circular LED light bulb board

## Features

- ⊙ True 'Vision On the Fly' Alignment
- ⊙ Fiducial recognition and coordinate correction
- ⊙ Assembles LED boards up to 1200 mm long in a single pass (option for 1800mm long)
- ⊙ Positive air puffing at the pick-up nozzle ensures release of 'sticky' LED components during placement
- ⊙ Large working platform allows multiply PCB production in one stage (for same type of PCB)
- ⊙ Uninterrupted production by auto-selection for alternative when feeder is empty
- ⊙ High-precision ballscrew drive
- ⊙ Tape feeder allows tape connection to minimize production interruption
- ⊙ Heavy-duty welded frame provides stability for precision placements even at high speeds
- ⊙ Option Teflon® nozzles available for sticky LED components; customized nozzles available on request
- ⊙ Three heads for high placement rates

Non-contact alignment algorithms performed during head travel



Single pass assembly



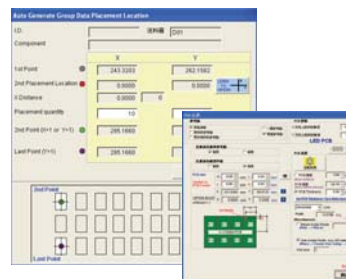
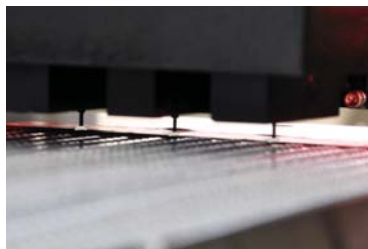
← LED boards up to 1800 mm long →

LED nozzle





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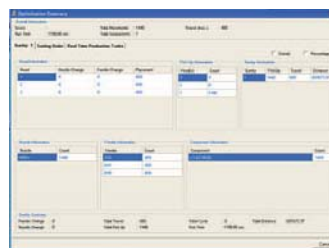


Heavy-duty welded, uni-body steel frame provides stability for precision placements even at high speeds

Upward-aimed true 'Vision on the Fly' Alignment cameras on the pick & place heads allow easy set-up for a wide range of LED components

With simply parameters inputs, the Windows-based software calculate the component coordination automatically

UCAD® universal CAD import and conversion for direct transfer of PCB data from ASCII, AutoCAD and Excel data formats



Support various PCB board type, includes, LED boards up to 1200 mm long (or option to 1800mm), flexible PCB, or circular PCB

Flying vision alignment on various LED components as well as SMDs. Teflon® nozzles also available for sticky LED components

Software tools analyze placement data and component mix to provide optimum feeder arrangement that minimizes head travel and tool changes

Real time monitoring screen for previewing production progress, production speed and production quantity during production

## Specification

Machine Model	LD812V4	LD812W3	LD806V4	LD806W3
<b>PCB specification</b>				
Max. board size (standard)	1200mm X 300mm	1200mm X 300mm	600mm X 300mm	600mm X 300mm
(option conveyor)	1200mm X 260mm	1200mm X 260mm	600mm X 260mm	600mm X 260mm
Board thickness	0.2mm to 3mm	0.2mm to 3mm	0.2mm to 3mm	0.2mm to 3mm
Board fixing principle	Magnetic fixture (option conveyor)	Magnetic fixture (option conveyor)	Magnetic fixture (option conveyor)	Magnetic fixture (option conveyor)
<b>Placement Specification</b>				
Alignment principle	Vision on the fly camera	Vision on the fly camera	Vision on the fly camera	Vision on the fly camera
No. of placement heads	4	3	4	3
Placement rate	15 000 / hour (IPC 9850)	10 000 / hour (IPC 9850)	15 000 / hour (IPC 9850)	10 000 / hour (IPC 9850)
Component size	0.6mm x 0.3mm to 8mm x 8mm	1mm x 0.5mm to 16mm x 14mm	0.6mm x 0.3mm to 8mm x 8mm	1mm x 0.5mm to 16mm x 14mm
<b>Feeder capacity</b>				
Feeding capacity	Max. 16 feeder ports (8mm tape)	Max. 16 feeder ports (8mm tape)	Max. 16 feeder ports (8mm tape)	Max. 16 feeder ports (8mm tape)
<b>Mechanical Specification</b>				
XY axis drive mechanism	X axis: placement head; Y axis: board transport	X axis: placement head; Y axis: board transport	X axis: placement head; Y axis: board transport	X axis: placement head; Y axis: board transport
Board loading method	Working stage (option conveyor)	Working stage (option conveyor)	Working stage (option conveyor)	Working stage (option conveyor)
In line production	Supported by option conveyor system	Supported by option conveyor system	Supported by option conveyor system	Supported by option conveyor system
Placement accuracy	+/-0.05mm	+/-0.05mm	+/-0.05mm	+/-0.05mm
X-Y Axis Resolution	0.02mm	0.02mm	0.02mm	0.02mm
Z Axis Resolution	0.02mm	0.02mm	0.02mm	0.02mm
R Axis Resolution	0.18 degree	0.18 degree	0.18 degree	0.18 degree
<b>Programming</b>				
Operation system	Windows XP based	Windows XP based	Windows XP based	Windows XP based
Support language	English (mult language support)	English (mult language support)	English (mult language support)	English (mult language support)
Programming	Easy programming (option CAD import)	Easy programming (option CAD import)	Easy programming (option CAD import)	Easy programming (option CAD import)
<b>Physical specification</b>				
Approximate Net Weight	450KG	445KG	380KG	375KG
Machine dimension (LxWxH)	2630mm X 1130mm X 1490mm	2630mm X 1130mm X 1490mm	1230mm X 1130mm X 1491mm	1230mm X 1130mm X 1491mm
<b>Facility Requirements</b>				
Air Pressure	5.5 bar	5.5 bar	5.5 bar	5.5 bar
Standard Voltage	220V(AC)	220V(AC)	220V(AC)	220V(AC)
Power	2200W	2200W	2200W	2200W

\* We reserve the right to make changes without notice.