Opal-X^{II}

Scalable solution for entry-level manufacturing

The Opal-X^{II} places at up to 11.6k cph (expandable to 17.7k cph) with 40-micron accuracy (QFPs). A second Opal-X^{II} machine can easily be incorporated in line for doubling capacity. The Opal-X^{II} handles components from 01005 to large connectors (45mm x 100mm), fine-pitch QFP, BGA, µBGA and CSP packages, and components up to 11mm tall. It holds up to 100 RFID-enabled smart feeders including stick and bulk parts. The high-precision single-placement beam carries four or eight independent standard heads (SF).

Other features include:

- Optional tray handler that allows 120 trays without sacrificing board width or feeder positions
- Custom vacuum nozzles to handle any component
- Board clamping system for stable board positioning and maximum placement accuracy (eliminates the need for tooling holes in the board).

Technical specifications Opal-X^{II}	
Optimal output per hour:	11.6k with 4 heads, 17.7 with 8 heads
IPC 9850 output per hour:	9.6k with 4 heads, 13.8 with 8 heads
Head design with SF:	one single beam with 4 super fine heads or one single beam with 8 super fine heads
Placing accuracy at 3 sigma:	50 micron for chips, 40 micron for QFP's
Component range:	01005 (0402) to 45 x 100mm (BGA, µBGA, CSP, Connector, Odds)
Maximum component height:	11mm (0.4") (area CCD camera required)
Toolbit exchange:	automatic nozzle or gripper exchange
Maximum board size (L x W):	460 x 440mm (18.1 x 17.3")
Minimum board size (L x W):	50 x 50mm (2 x 2")
Large Board Application:	650 x 850mm (25.6 x 33.5")
Board thickness:	0.4 to 4.0mm (0.016 x 0.16")
Tape feeding positions (8mm):	100 (CLi)
Tray feeding:	LCS tray feeder with 40 pallets
Other feeder options:	tape, stick, tray, tube, etc.
Feeder trolleys:	2 x 20 position (CLi) front side (50 position (CLi) fixed rear side)
Alignment principle:	line array camera, are CCD camera
Footprint (L x W):	1650 x 1408mm (5.4 x 4.5 ft)
Operating system:	Windows NT™