

Topaz-X^{II}

Powerful module for very high production rates

The Topaz-X^{II} places at rates up to 20k cph, and offers a wide component range, very high production rates and 35-micron accuracy at high speeds (on fine-pitch components). It handles components ranging from 01005 to large connectors (45mm x 100mm), fine-pitch QFP, BGA, μ BGA and CSP packages, and components up to 11mm tall. The Topaz-X^{II} holds up to 90 RFID-enabled smart feeders, or 160 twin tape-feeders, including stick and bulk parts. Its high-precision single-placement beam carries eight standard heads (SF), or four flying nozzle exchange (FNC) heads plus four 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
- Line array camera for primary alignment, assisted by a high-precision, on-the-fly co-planarity camera
- Board clamping system for stable board positioning and maximum placement accuracy (eliminates the need for tooling holes in the board).



Technical specifications Topaz-X^{II}

Optimal output per hour:	20k
IPC 9850 output per hour:	15.4k
Head design with SF:	one single beam with 8 super fine heads
Head design with FNC:	one single beam carrying 4 standard heads and 4 heads with nozzle exchange on-the-fly
Placing accuracy at 3 sigma:	50 micron for chips, 35 micron for QFP's
Component range:	01005 (0402) to 45 x 100mm (BGA, μ BGA, CSP, Connector, Odds)
Maximum component height:	11mm (0.4") (area CCD camera required)
Toolbit exchange:	automatic nozzle exchange
Maximum board size (L x W):	460 x 440mm (18.1 x 17.3")
Minimum board size (L x W):	50 x 50mm (2.0 x 2.0")
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):	90 (CLi) or 160 (ITF)
Tray feeding:	LCS tray feeder with 40 pallets, single ATS tray feeder with 20 pallets
Other feeder options:	tape, stick, tray, tube, waffle pack, etc.
Feeder trolleys:	4 x 20 position (CLi) or 4 x 20 position (ITF)
Alignment principle:	line array camera, area CCD camera, co-planarity check on-the-fly
Footprint (L x W):	1650 x 1408mm (5.4 x 4.5 ft)
Operating system:	Windows NT™