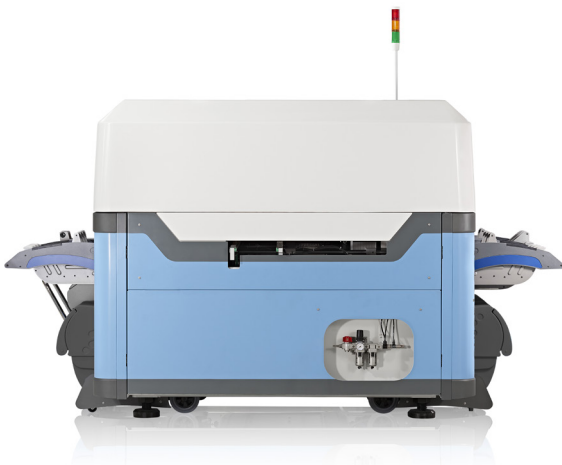


PRELIMINARY



SPECIFICATIONS

atom 4 CAPABILITY

Tact time	atom 4 – 0.035 sec – 104,000cph (IPC 7800cph)
Placement accuracy	50µm (chips) @ 3 sigma
Placement head	4 pipette heads on X/Y linear motor gantries with 8 nozzle positions per head
Nozzles	4 x 40 position 'smart' nozzle tool bank in front 4 x 40 position 'smart' nozzle tool bank at rear (as an option)
Component analysis	4 x 'Fly over' high resolution digital camera in front 4 x 'Fly over' high resolution digital camera at rear (as an option)
Feeder range	Full range of intelligent feeders for 8mm to 104mm tapes
Feeder capacity	264 x 8mm tape feeder positions

atom 3 CAPABILITY

Tact time	atom 3 – 0.054 sec – 65,000cph (IPC 49800cph)
Placement accuracy	35µm (QFPs) to 50µm (chips) @ 3 sigma
Placement head	2 pipette heads on X/Y linear motor gantries with 8 nozzle positions per head 1 rotary turret head on X/Y linear motor gantry with 8 nozzle positions
Nozzles	Pipette head: 2 x 40 position 'smart' nozzle tool bank in front 2 x 40 position 'smart' nozzle tool bank at rear (as an option) Turret head: 1 x 60 position 'smart' nozzle tool bank (1 x 40 position and 1 special tool bank as option)
Component analysis	Pipette head: 2 x 'Fly over' high resolution digital camera in front 2 x 'Fly over' high resolution digital camera at rear (as an option) Turret head: 'On-the-fly' high resolution digital camera (fixed camera as an option)
Feeder range	Full range of intelligent feeders for 8mm to 104mm tapes, components in plastic sticks and matrix trays
Feeder capacity	264 x 8mm tape feeder positions 5 Jedge matrix trays (equivalent)

BOARD HANDLING

Minimum PCB size	60mm x 45mm
Maximum PCB sizes atom 4	330mm x 460mm (330mm x 510mm with no camera/nozzles at rear) Length 825mm in mode long board Length 2099mm (special development on demand) Width 715mm with no feeder at the rear
Maximum PCB sizes atom 3	330mm x 460mm (330mm x 600mm with no camera/nozzles at rear) Length 460mm in mode long board with internal tray holder Length 865mm in mode long board without internal tray holder Length 2059mm (special development on demand) Width 715mm with no feeder at the rear
Thickness	0.5mm to 10.0mm
Weight	3kg max. (10kg max. as an option)
Under board clearance	Full edge clamping with fiducial correction
Board location	3mm above, 5mm below
Board edge clearance	Left to right (right to left optional), fixed front rail,
Transport criteria	height-adjustable 890mm to 975mm, SMD interface

COMPONENT RANGE

Types	µBGA, LGA, CSP, connectors, Flip chip, through hole and odd-form surface mount devices
Minimum size	0.4mm x 0.2mm (01005)
Maximum size	Pipette head: 13x13mm Turret head: 50mm x 50mm as standard; 70mm x 70mm and 100mm long connectors with fixed camera option (99mm x 99mm under certain conditions)
Maximum height	Pipette head: 7mm Turret head: 12mm with full revolution of turret 34mm in 1 component mode with upward fixed camera
Minimum lead pitch	0.3mm (QFP), 0.4mm (µBGA)
Minimum lead/ball size	0.15mm (QFP), 0.2mm (µBGA) with optional fixed camera 0.15mm (QFP), 0.2mm (µBGA) 0.07mm (QFP), 0.1mm (µBGA) with optional fixed camera