

PCB Equipment List

Fuji IP3-5000 Placement System:

Multi-functional SMD mounter capable of placing any component including fine-pitch, BGA, micro BGA, and connectors. This unit achieves a placing speed of 0.55 seconds for small chips, 1.25 seconds for IC's, and 2.5 seconds for tray components. Can supply a maximum of 154 part types, from 1005's (0402") up to 74 X 74mm components. PCB dimensions are 20" X 18".

Fuji XP-141E Placement System:

Compact multi-purpose high speed chip placer. Fuji's newest vision system and MS algorithm provide precise, on-the-fly inspection of small and odd-form parts ranging from 0201's to 20 x 20mm at a rate of 0.165 seconds.

MPM Ultra Print 500 Screen Printer:

High speed, high-accuracy screen printer, which exceeds fine pitch solder printing expectations. Dual squeegee configuration includes: CE mark, top/bottom side cleaning, and vacuum standoff tooling pin and paste dispenser. High resolution fiducial camera with 18.3 um/pixel makes screening to PCB alignment possible to within 0.025mm. Maximum PCB dimensions are 20" X 18". 2D post solder paste verification system.

Heller 1800EXL Reflow Oven:

Pure forced convection reflow oven providing six-sigma performance. Process consistency supports identical profile performance in air or nitrogen. Other features include: 22" wide mesh belt, 72" heated tunnel length, complete computer control system, and 12 independent temperature controlled heating zones to ensure stability to +/- 1 degree C.

Universal VCD/Sequencer 6241B:

Axial sequencer/inserter. Enables sequencing and component insertion with one easy step. It sequences 52mm (2.05") axial components and jumper wire in a predetermined pattern and inserts the sequenced component in a PC board according to that pattern. The modules are expandable to provide up to 220 input stations. Automated board handling supports bare board-to-magazine and magazine-to-magazine.

Electrovert Econopack SMT:

Wave soldering system with rotary chip, lambda, and omega frequency waves. Will accommodate up to four preheaters. Other features include a dual aerator, foam fluxer for low-solid flux, and a solder nozzle design based on the lambda concept.

**Checksum MDA Automatic
Tester:**

Automated testing for component verification. Value, tolerance, and limited functional testing capabilities.

PCAD PCB layout System:

Ability to layout any type of board: surface mount or thru-hole; single side, double side, or multi-layer.

Spectrum 8852E Manufacturing Process Test System:

Flexible, cost-effective architecture for manufacturing process test. Highest process fault coverage, including full vectored test. High-performance analog signal test. High-throughput digital test. Mixed-signal testing of ADCs/DACs. Full boundary-scan test capabilities. In-line device programming of Flash, EEPROM, FPGAs devices. Comprehensive test creation and debug in support of a rapid test development and fixture build. Instant test execution of individual components, groups of components and sub-programs. Built-in self test.

Microjet FC In-Line Wash System:

High-impingement wash and rinse jet system. Out-cleans all competitors in the toughest cleaning applications namely, low standoff flip chip/BGA/micro-BGA assemblies. Direct flow drying technology physically forces water out tight spaces to ensure complete drying.

Data IO: 3980XPI Programmer:

A true universal programmer supporting virtually every device technology on the market at a range of voltages unmatched in other programmers. The advance driver design allows programming below one volt with extremely fine current control and absolute waveform integrity.