FlexTRAK™-2MB Plasma System

Features and Benefits

- Unique boat bypass feature optimizes productivity
- Multiple inline plasma modules increase throughput
- High uniform plasma treatment
- Production ready dual lane boat handling
- Ideal for pre-Flip-Chip Underfill (FCUF) processes

Plasma System for High-Throughput, Inline Boat Processing

The FlexTRAK™-2MB system is designed for high throughput, inline processing of microelectronic devices held in boats, trays or other carriers. The patented plasma module provides exceptional uniformity and run-to-run process repeatability. Its advanced three axis symmetrical plasma chamber ensures control over all process parameters and highly repeatable results.

The system seamlessly integrates into a production line, while accommodating a wide range of boat sizes, yielding unmatched production flexibility. Its compact plasma chamber and proprietary process control system minimize cycle time.

The integrated boat handler of the FlexTRAK-2MB system provides rapid material transfer, up to 2 boats per plasma cycle. Combined with the compact design and short plasma cycle, the system maximizes through-put and minimizes cost of ownership.

Applications

Plasma processes for pre-flip chip underfill, pre-die attach, pre-wire bond and pre-mold steps.

Plasma Contamination Removal & Cleaning

- Fluorine & other halogens
- Metals & metal oxides
- Organic compounds

Plasma Etching

- Roughen surfaces to improve adhesion and reduced delamination
- Modify surfaces to increase bond strength and surface tension properties

Surface Activation

- Improve flip chip underfill performance by minimizing voids, enhancing adhesion, increasing wicking speed and maximizing filet height uniformity.
- Improve mold material flow to eliminate voids and reduce wire sweep

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Specifications: FlexTRAK™-2MB Plasma System

Enclosure Dimensions	**W x D x H – Footprint**	800W x 1530D x 1596H; 1950H mm with Light Tower (31.5W x 60.2D x 62.8H; 76.8H in. with Light Tower)
	Net Weight	590 kg (1300 lbs)
	Equipment Clearances	Front, Right, Left – 607 mm (24 in.), Back – 254 mm (10 in)
Chamber	**Maximum Volume**	5.5 liters (338 in³)
Electrodes	**Variable Electrode Configurations**	Power-Ground, Ground-Power; Power-Power
	Working Area	305W x 305D mm (12W x 12D in.)
RF Power	**Standard Wattage**	600 W
	Frequency	13.56 MHz
Gas Control	**Available Flow Volumes**	10, 25, 50, 100, 250 or 500 sccm
	Maximum Number of MFCs	4
Control & Interface	**Software Control**	EPC with PC-Based Touch Screen Interface
	Remote Interface	SMEMA, SECS/GEM
Vacuum Pump	**Standard Dry Pump**	16 cfm
	Optional Wet Pump	19.5 cfm
	Optional Purged Dry Pump	16 cfm
	N2 Purged Pump Flow	2 slm
Facilities	**Power Supply**	220 VAC, 15A, 50/60 Hz, 1-Phase, 12 AWG, 3-Wire
	Process Gas Fitting Size & Type	6.35 mm (0.25 in.) OD Swagelok Tube
	Process Gas Purity	Lab or Electronic Grade
	Process Gas Pressure	0.69 bar (10 psig) min. to 1.03 bar (15 psig) max., regulated
	Purge Gas Fitting Size & Type	6.35 mm (0.25 in.) OD Swagelok Tube
	Purge Gas Purity	Lab or Electronic Grade N2/CDA
	Purge Gas Pressure	2 bar (30 psig) min. to 6.9 bar (100 psig) max., regulated
	Pneumatic Valves Fitting Size & Type	6.35 mm (0.25 in.) OD Swagelok Tube
	Pneumatic Gas Purity	CDA, Oil Free, Dewpoint ≤7°C (45°F), Particulate Size <5 µm
	Pneumatic Gas Pressure	3.45 bar (50 psig) min. to 6.89 bar (100 psig) max., regulated
	Exhaust	25.4 mm (1 in.) OD Pipe Flange
Compliance	**SEMI**	E10, S2/S8 (EH&S/Ergonomics)
	International	CE Marked
Ancillary Equipment	**Gas Generators**	Nitrogen, Hydrogen (Requires Additional Non-Optional Hardware)
	Facilities	Chiller, Scrubber

For more information, speak with your local representative or contact your regional office.

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