

# 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 fillet height uniformity.
- Improve mold material flow to eliminate voids and reduce wire sweep

## Specifications: FlexTRAK™ 2MB Plasma System

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

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

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