# FasTRAK<sup>™</sup> Plasma System

Versatile Strip Processing

### **Features and Benefits**

- Flexible configuration accommodates the full range of strip dimensions and magazine designs
- Advanced robotic handling system minimizes strip handling, pushing, pulling and reduces operator intervention
- New camera-based material tracking provides 100% plasma treatment validation
- High-efficiency, application specific, plasma chamber design offers Direct or Ion Free plasma treatment modes
- Significantly smaller system footprint and magazine reuse capability save space and help lower cost of ownership

## **High Reliability Strip Handling**

The FasTRAK<sup>™</sup> Plasma System is a fullyautomated, high-throughput, plasma treatment system for lead-frame strips, laminate substrates, and other strip-type microelectronic components.

Measuring 1.65 meters wide by 1.5 meters deep the FasTRAK Plasma System has a >35% smaller system footprint than previous strip processing models. The capability to reuse magazines further reduces the effective footprint as the empty magazines do not need to be staged at the system.

Using state-of-the-art robotic movement that virtually eliminates operator handling of the strips or magazines, the FasTRAK Plasma System accommodates the full-known range of magazines and strip width, length and thickness dimensions.

The FasTRAK System makes it easy to change over to accommodate a new magazine or strip size recipes are software driven and the system requires minimal hardware interaction or tooling. The field-proven robotics were specifically designed to lower the handling risk to sensitive substrate



materials by using minimal movement, pushing, pulling and low G-forces.

The FasTRAK System features an innovative new material tracking software application and internal camera to count the number of strips and track their progress throughout the entire treatment process, providing 100% treatment validation. Up to 10 strips can be accommodated per batch with an industry leading units per hour (UPH) treatment rate.

The FasTRAK system also includes a new highefficiency, application-specific, plasma chamber that can be configured for Direct or Ion-Free plasma modes.

## **Plasma Processes Include**

- Pre-die attach for improved adhesion
- Pre-wire bond for higher pull strength and CpKs
- Pre-mold to reduce delamination
- Post-mold to remove flash
- Pre-underfill to reduce voiding



## Specifications: FasTRAK<sup>™</sup> Plasma System

Enclosure	W x D x H – Footprint	1650 W x 1500 D x 2100 H mm
Dimensions		(64.96 W x 59.06 D x 82.68 H in.)
	Net Weight	909 kg (2000 lb)
	Effective Footprint – Clearances	Right, Left, Back – 914 mm (36 in.)
		Front – 914 mm (36 in.)
Chamber	Dimensions	330 W x 330 D x 50 H mm
		(13 W x 13 D x 2 H in.)
	Volume	5.5 liters (338 in <sup>3</sup> )
	Variable Electrode Configurations	Power-Ground; Ground-Power; Power-Power
Electrodes	Powered Electrode Dimensions	325 W x 325 D x 50 H mm (12.8 W x 12.8 D x 2 H in.)
	Working Area	305 W x 305 D mm
RF Power	Standard Wattage	600 W
	Frequency	13.56 MHz
Gas Control	Maximum Number of MFCs	4
Control	PLC Control with PC Based	
System	Touch Screen Interface	
Remote	SMEMA; SECS/GEM	Optional
Interface		1
Vacuum	Dry vacuum pump	16 CFM
Pump		Variable Frequency Drive
Facilities	Power Supply	220VAC, 15A, 50/60Hz, Single Phase, 12 AWG, 3-Wire
	Process Gas Fitting Size & Type	.25-in. OD Swagelok Tube
	Process Gas Purity	Industrial grade or better
	Process Gas Pressure	Regulated from .69 bar (10 psig) min. to 1 bar (15 psig) max.
	Purge Gas Fitting Size & Type	.25-in. OD Swagelok Tube
	Purge Gas Purity	Industrial grade Nitrogen or CDA
	Purge Gas Pressure	Regulated from 2 bar (30 psig) min. to 5.5 bar (80 psig) max.
	Pneumatic Valves Fitting Size &	.25-in. OD Swagelok Tube
	Туре	
	Pneumatic Gas Purity	CDA, Oil Free, Dewpoint <=7°C /45°F, Particulate Size <5
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	Pneumatic Gas Pressure	Regulated from 3.4 bar (50 psig) min. to 5.5 bar (80 psig) max.
	Exhaust	25.4mm (1 in.) OD Pipe Flange
	Vacuum Source	-80 kPa (-23.3 in. Hg)
Compliance	Certifications	CE Marked, SEMI S2/S8 (EH&S/Ergonomics), Cleanroom, SEMI E-10
Ancillary Equipment	Optional Equipment	Nitrogen generator, Hydrogen generator (Requires Additional Non-Optional Hardware), Scrubber



## Dimensions: FasTRAK<sup>™</sup> Plasma System



FasTRAK Plasma System - Front View



FasTRAK Plasma System – Right Side View



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## FasTRAK<sup>™</sup> Plasma System



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Revision B

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