

P300F PRO

Configuration

Item	Configuration
System platform	Picosun Picoplatform P300F PRO
Process modules	Two-module configuration: P300F PRO Thermal ALD + P200S PRO PEALD
Wafer size	150 mm (6 inch)
Substrates	GaAs, Si, and SiC
Wafer handling	Automated cassette-to-cassette handling
Robot	Brooks MX-700
Automation	SECS/GEM factory integration
Process capability	Thermal ALD and plasma-enhanced ALD

Module Hardware

Item	Configuration
P300F module	P300F PRO Thermal ALD; P300F reaction chamber; 6 inch wafer holder
P200S module	P200S PRO PEALD; RC-200 heated sample stage; 6 inch heated chuck
Vacuum	Ebara EV-M102N pumps; P300F configuration included a spare pump
Plasma source	Advanced Energy Litmas, 3 kW ICP on P200S module
Liquid precursor delivery	Picosolution 600 systems
Heated precursor delivery	Picohot heated source systems
Gas delivery	PicoGas / PicoPlasma gas delivery for process and purge gases
Ozone	Picozone 200 delivery system associated with P300F thermal ALD

Environmental / Facility Interface

Utility	Historical requirement / interface
Electrical	208 V, 3 phase; 50/60 Hz (historical specification)
Nitrogen	Minimum 2 slm for ALD unit; 99.999% minimum purity; 1-2 bar specified in historical utility document
Compressed dry air	4-5.5 bar for ALD unit
Cooling	Cooling water and nitrogen associated with dry-pump operation
Ambient	19-25 C suggested; 35-65% RH in historical specification
Exhaust / vacuum	Pump line and exhaust line required