

## PCT

### Megasonic Generators

Megasonic Solutions for:

- Semiconductor
- MEMs
- Disk Drives
- Media Storage
- Flat Panel & Flex Displays
- Optics
- LED
- Solar
- Medical Devices
- R&D Labs

**PCT Systems** 

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## Megasonic HyperClean™ Generators

For over 20 years, PCT Systems, Inc. has pioneered and developed the leading megasonic technology available in the global market. With numerous patents and patents pending, customers around the world have come to depend on PCT Systems, Inc. for the highest quality and performance megasonic systems today. With the development of super fine geometries with more fragile structures and substrates, customers need more process development options than ever before to be successful, productive and profitable. HyperClean™ incorporates PCT's unique energy-transfer technology in a heated all-quartz unit for superior submicron cleaning, reduced operating costs and high reliability.

#### Model 9400 Universal Generator



#### Model 6000 Series Generator



Power ANY Brand
Transducer Plate with a
PCT Megasonic
Generator and see
Improved Performance

Megasonic performance starts with the generator and not all generators are created equal. Simply put, PCT offers the most versatile and fully featured megasonic generators on the market.

#### **Unmatched Process Control & Flexibility**

No matter what the application, PCT
HYPERCLEAN™ Megasonic Generators have
become the standard by which others are measured.
No other manufacturer's generators are able to drive
virtually any make megasonic transducer array. So
whether a new system or replacement generator is
needed, PCT can provide Process improvement with
our patented HYPERCLEAN™ technology.

PCT Systems, Inc. offers complete HYPERCLEAN™ Megasonic Systems including a wide tank selection of quartz, plastic and stainless steel for any size application or substrate. Customizable transducer arrays in either direct bond or indirect transfer configurations offer an unequalled selection for users to optimize their systems.

### PCT's Series 9400 Universal Generator

- Active Phase Shifting for 3 Dimensional Control of Megasonic Energy
- Individually Configurable and Tunable for Optimum Process Results
- Independent Power and Frequency Control
- Programmable Up to 8 Step Changes per Channel
- Programmable RF Output Range up to 500 Watts per Channel
- 4 Independent Channels with 2 outputs per Channel
- Synchronized or Individual Control of Each Channel
- Multiple Frequency Bands Individually Controlled
- Patented Multiplexing for On/Off Control of Individual Transducers
- Process Variables and Real Time Data Monitoring
- Universal Application for Most Competitive Transducers — No Matching Required
- Over 90%+ Efficiency from the Smallest Size Generator of all Competitive Units
- Smallest Footprint and Space Requirement Reduced Need for Multiple Generators
- And more . . . .







# **PCT** Megasonic Generators

Dimension	Model 6000 Series Generator	Model 9400 Universal Generator	Model 9200 Mini-Meg Generator
Width	14.0"	12.5"	12.5"
Length	14.0"	14.0"	14.0"
Height	7.0"	3.5"	3.5"
Megasonic Amplifier Operation		0.0	3.3
Controller	Multiplexing operation	Independent Power &	
	for 2-8 transducers per	Frequency Control	
	output. Optional	for each RF Output	
	embedded temperature		
	controller for heaters		
Number of Channels	2	4	2
Number of Outputs per Channel	8	2	2
Maximum RF Output/Channel	350 watts	500 watts	500 watts
Maximum RF Output per Unit	-	2000 watts	1000 watts
Programmable RF Output Range	0 to 350 watts per	0 to 500 watts per	0 to 500 watts per
	Channel	Channel	Channel
Programmable Recipes	7	7	7
Frequency Changes / Recipe	-	8	8
RF Output Power Tolerance	+/- 10%	+/- 10%	+/- 10%
Frequency Bands	600Khz-1MHz	500Khz-1MHz	Choice of 1
		1.0-1.5 MHz 2.0-2.5 MHz	450kHz, 750kHz, 950kHz
Mechanical Specifications		2.0-2.3 141112	
Materials & Mounting	Anodized Aluminum with Horizontal or Vertical Mounting Options		
Electrical Specifications			
Voltage Rating	208-240 VAC, 50/60 Hz		
Current Rating	Max 10 amps non-heated (Max 30 amps heated with Model 6000)		
Environmental Operating Range	0° to 27°C Operating Range, -25° to 50°C Storage Temperature Range		
Frequency Resolution	100 Hz		
Frequency Accuracy	+/- 100 Hz		
Programmable Sweep Functionality	1-10 KHz		
RF Output Connectors	DB15F		
External Interface			
Communication Ports	RS232 or standard 3 pin connector		
Transducer Connections	DB15 Female connectors for each channel with internal safety loopback		
Displays/User Interface/Data	Storage		
4 Line 40 Character LCD with keypad			
Display	Monitoring of data logging interface through RS323 connection		
	Frequency, Power, Time an	d more	
	ETL File No. 567511 per UL	3101-1 and CSA 1010.1	
PCT Certifications	CE EN 61010-1 European Sa		
	CE EN 55011 European EMI Approval		

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Web

CE EN 55011 European EMI Approval CE EN 50082-2 European ESD, RF, and Transient Susceptibility Approval



www.pctsystems.com