

# CX 5K & CX 10K High Frequency RF Power Supplies

**High Power Range of the CX Series Family  
of Products**



## Performance:

The CX high frequency series is available in power ranges of 5000 and 10,000 Watts with fixed frequencies from 2 to 30 MHz, and frequency agile capability up to 10% bandwidth. The CX series provides precise, repeatable power control with ultra-stable output. The solid-state design provides low cost of ownership with high reliability.

## Applications:

The CX series is designed to meet the performance demand in RF-driven plasma systems for semiconductor processing. Applications include etch, RIE, parallel plate, ICP, RF sputtering, CVD and PVD, as well as induction and dielectric heating processes in industrial systems.

## CX Series Family of Products:

Other RF power ranges include 600, 1250, 2500 and 3500 Watts

## Features:

- **Patented S-Technology provides ultra-stable output. This stabilizing technology optimizes amplifier performance, reducing power-gain changes caused by plasma impedance fluctuations.**
- **ETL Marked for product safety and SEMI F47 compliant**
- **Standard RS-232 and analog/digital control**
- **Active front panel with full controls and programmable microprocessor**

## Options:

- **Wide range of AC input line voltages available**
- **Frequency tuning with external VCO or internal synthesizer**
- **Master/Slave operation**
- **DeviceNet**

## General Specifications:

• Frequency:	Any fixed frequency from 2 to 30 MHz
• Frequency stability:	+/- 0.005%
• Load impedance:	50 Ohms nominal
• Analog power command:	0-10 VDC or 0-5 VDC for 0 to maximum output
• Standard available output connector:	HN, LC or 7/16
• Line regulation:	≤ 1% for +/- 10% line
• Load regulation:	≤ 3% from 10-100% setpoint before SWR foldback
• Power control linearity:	Better than 2% of setting at power levels above 10% of rated power
• Power readback vs. actual:	Within 2%

## RF Specifications:

	<b>CX 5K</b>	<b>CX 10K</b>
<b>Output power:</b>	5000W	10000W
<b>Harmonic output:</b>	Less than -30 dBc	Less than -50 dBc*
<b>Spurious output:</b>	Less than -40 dBc	Less than -50 dBc*
<b>AM &amp; FM noise (@ 50 kHz offset):</b>	Less than -40 dBc	Less than -40 dBc
<b>Cooling:</b>	Water: 3 GPM (11.4 liters)	Water: 3 GPM (11.4 liters)
<b>Size:</b>	5.25"H x 19"W x 24"D (13.3cm x 48.3cm x 61cm)	7"H x 19"W x 24"D (17.8cm x 48.3cm x 61cm)
<b>Weight:</b>	55 lbs. (25 kg)	120 lbs. (54.4 kg)

\*at frequencies above 10 MHz

## DC Specifications:

	<b>CX 5K</b>	<b>CX 10K</b>
<b>Line input voltage:</b>	185-230VAC or 440-480VAC; three phase; 50/60 Hz	185-230VAC or 440-480VAC; three phase; 50/60 Hz
<b>Line current:</b>	28A typical @ 208VAC 12A typical @ 480VAC	70A typical @ 208VAC 30A typical @ 480VAC
<b>Cooling:</b>	Water: 3 GPM (11.4 liters)	Water: 3 GPM (11.4 liters)
<b>Size:</b>	5.25"H x 19"W x 24"D (13.3cm x 48.3cm x 61cm)	8.75"H x 19"W x 24"D (22.2cm x 48.3cm x 61cm)
<b>Weight:</b>	275 lbs. (125 kg)	360 lbs. (163.3 kg)

Note: The CX 10K can be factory set to deliver 8000W output power.