

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, and solar photovoltaic applications.

CX Series Family of Products:

Other RF power ranges include 600, 1250, and 2500 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:

	CX 5K	CX 10K
Output power:	5000W	10000W
Harmonic output:	Less than -30 dBc	Less than -50 dBc*
Spurious output:	Less than -40 dBc	Less than -50 dBc*
AM & FM noise (@ 50 kHz offset):	Less than -40 dBc	Less than -40 dBc
Cooling:	Water: 3 GPM (11.4 liters)	Water: 3 GPM (11.4 liters)
Size:	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)
Weight:	55 lbs. (25 kg)	120 lbs. (54.4 kg)

*at frequencies above 10 MHz

DC Specifications:

	CX 5K	CX 10K
Line input voltage:	185-230VAC or 440-480VAC; three phase; 50/60 Hz	185-230VAC or 440-480VAC; three phase; 50/60 Hz
Line current:	28A typical @ 208VAC 12A typical @ 480VAC	70A typical @ 208VAC 30A typical @ 480VAC
Cooling:	Water: 3 GPM (11.4 liters)	Water: 3 GPM (11.4 liters)
Size:	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)
Weight:	275 lbs. (125 kg)	360 lbs. (163.3 kg)

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