

Communications & Power Industries Gyrotron CW Oscillator



FEATURES:

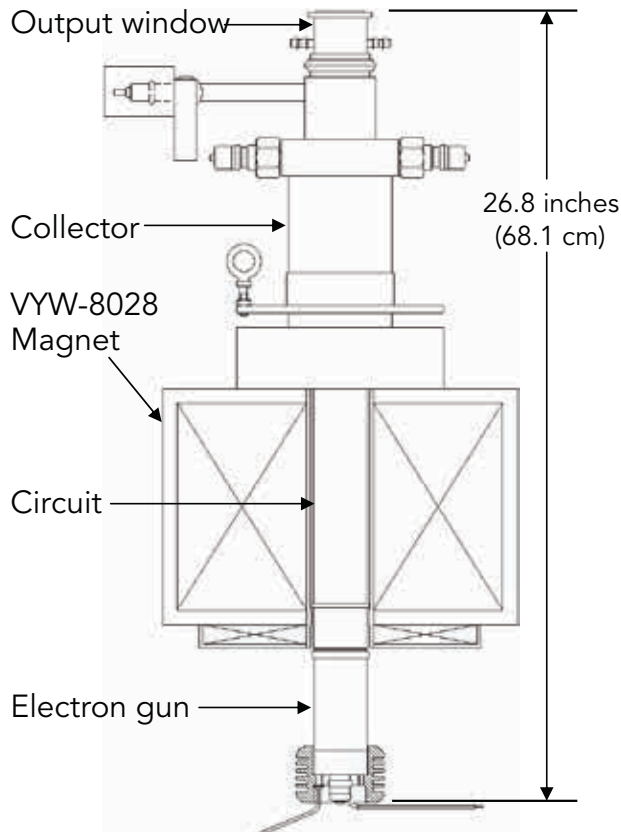
- CW or pulsed operation
- Diode electron gun
- Second cyclotron harmonic operation
- Room-temperature water-cooled magnet

BENEFITS:

- Ease of operation
- Efficient
- Small Size

APPLICATIONS:

- Ceramic sintering
- Cyclotron resonance ion sources
- Plasma applications
- Special material heating applications



CPI gyrotrons were the first commercially available high-power, long-pulse/CW, high-frequency devices for plasma fusion experiments and other scientific and industrial applications. CPI-MPP provides an extensive line of gyrotrons that cover frequencies from 28-140 GHz with power levels up to 1.3 MW.

The VGA-8028 was designed to provide up to 10 kW of millimeter wave power in industrial and scientific applications where reliability, ease of operation, efficiency, and small size are particularly important. It has been successfully used in ceramic sintering, cyclotron resonance ion sources, plasma applications, and special material heating applications. For lower-power applications, the VGA-8028A is optimized for 3 kW operation.

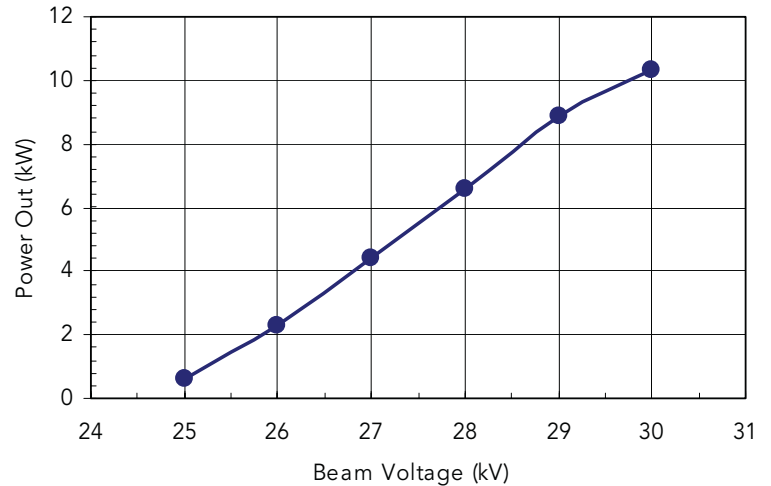
An extensive line of microwave components for use with the gyrotron is also available from CPI. These include waveguide arc detector, TE02 to TE01 mode converter, mode filter to maintain mode purity, directional coupler to measure forward and reflected power, 90 degree waveguide bend, barrier vacuum and calorimetric load.

CPI Gyrotron Oscillator: VGA-8028

Typical Operating Parameters

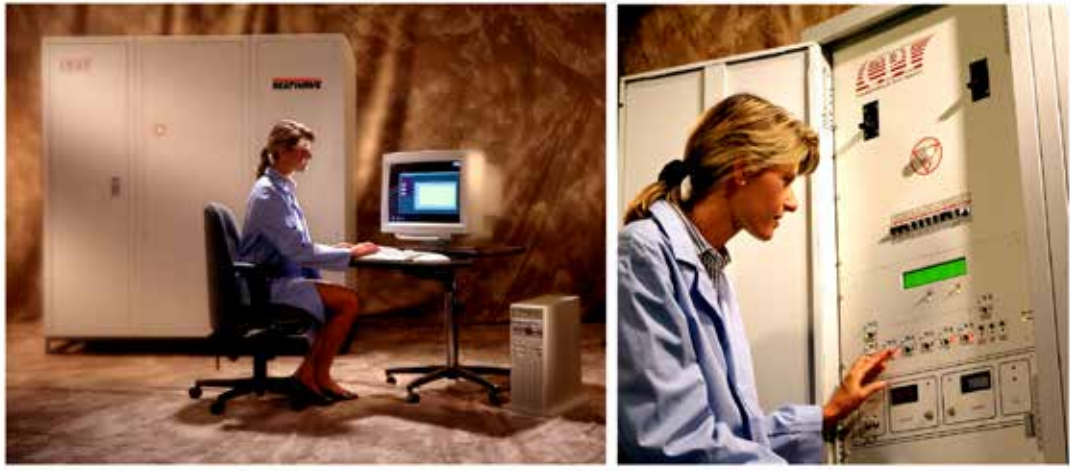
Power output	10 kW
Beam voltage	30 kV
Beam current	1.1 A
Frequency	28 ± 0.1 GHz
Efficiency	30%
Magnet power	5.5 kW
Output mode	TE ₀₂
Gyrotron weight	35 lbs (15.88 kg)
Magnet weight	200 lbs (90.72 kg)

Measured Data: Output Power vs. Beam Voltage
Gyrotron: VGA-8028 S/N 008R
Magnet: VYW-8028 S/N 007
August 30, 2006



HeatWave™ Gyrotron Heating System

A complete turn-key system including this gyrotron is also available from CPI. The system allows complete computer control of the gyrotron power output as a function of time to match a desired power profile or to respond to power requirements that may be dictated by changing load parameters.



With a history of producing high quality products, we can help you with your gyrotron.

Contact us at MPPMarketing@cpii.com or call us at +1 650-846-2800.

The data should be used for basic information only. Formal, controlled specifications may be obtained from CPI for use in equipment design.



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For more detailed information, please refer to the corresponding CPI technical description if one has been published, or contact CPI. Specifications may change without notice as a result of additional data or product refinement. Please contact CPI before using this information for system design.

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