

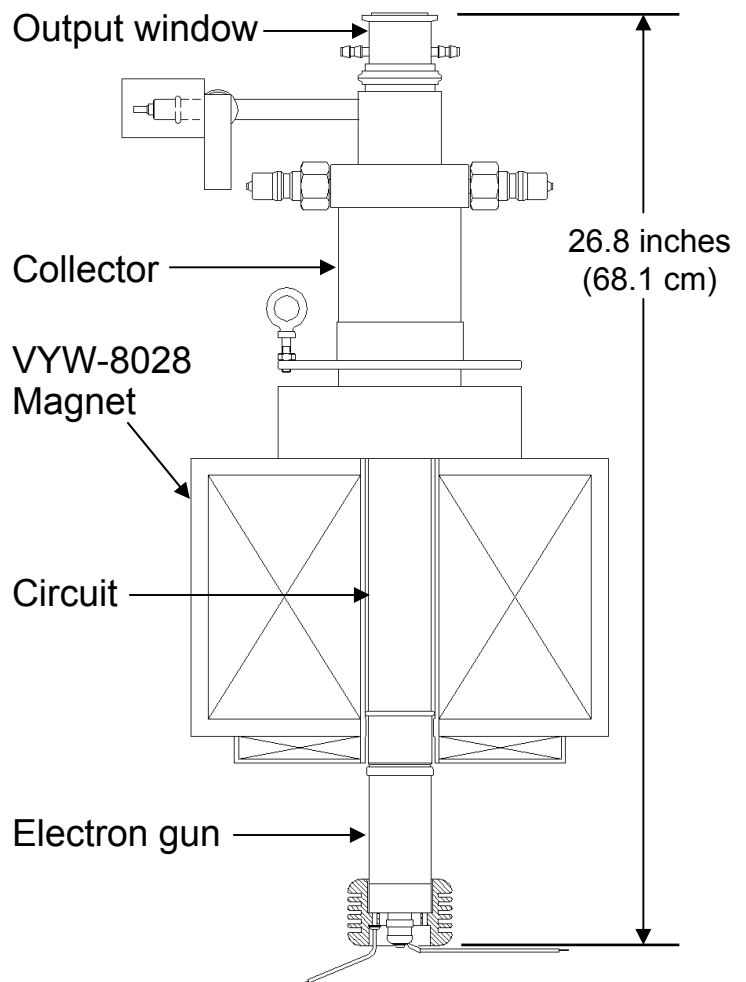
# VGA-8028 Gyrotron Oscillator



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 window, and calorimetric load.



For additional information on gyrotrons, other CPI products, or a copy of our catalog-on-disk, please contact:  
CPI Microwave Power Products, 811 Hansen Way, Palo Alto, CA 94303-0750  
Telephone: 650-846-3172, Fax: 650-856-0705, Email: [marketing@cpii.com](mailto:marketing@cpii.com)

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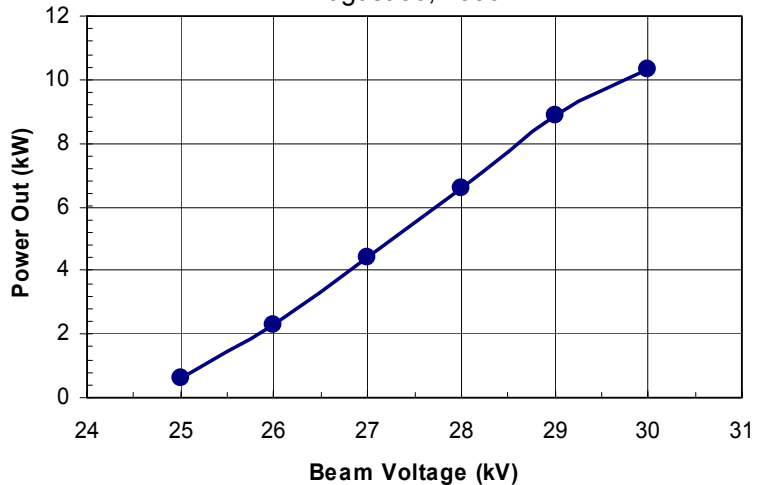
## Typical Operating Parameters

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 <sub>02</sub>
Gyrotron Weight	35 lbs
Magnet Weight	200 lbs

## Features

- CW or Pulsed Operation
- Diode Electron Gun
- Second Cyclotron Harmonic Operation
- Room-Temperature Water-Cooled Magnet

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.



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