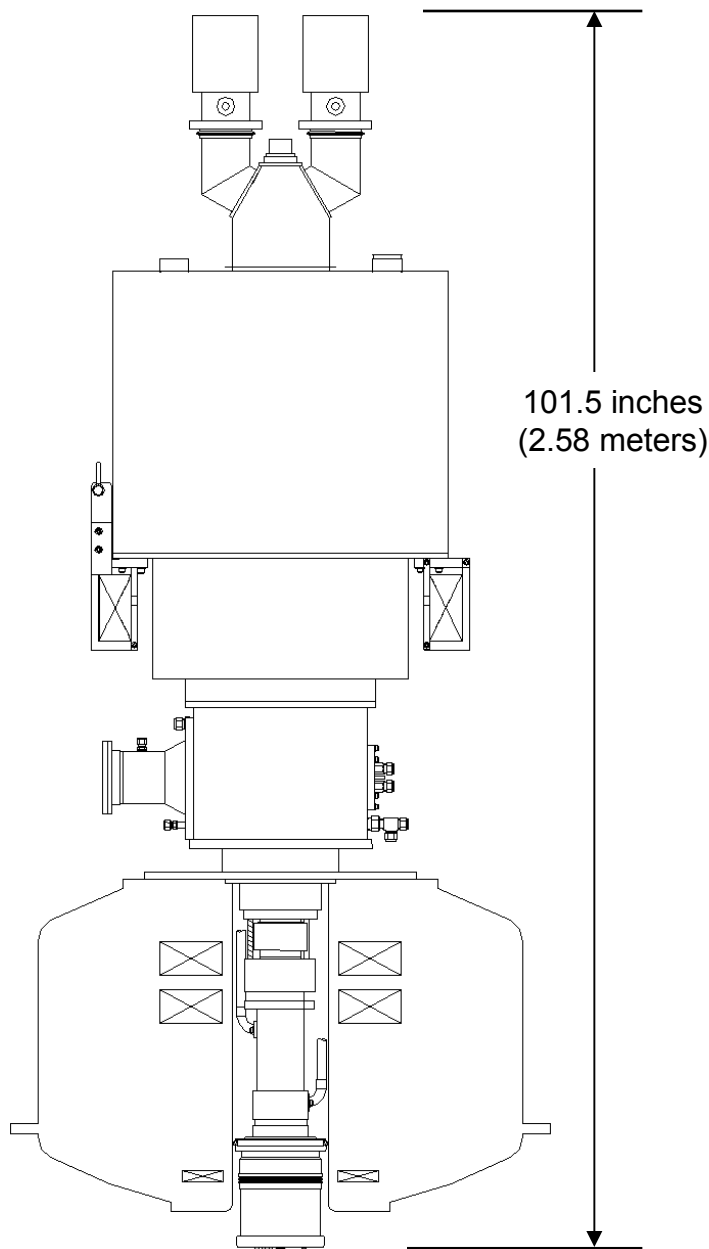


# VGT-8110 Gyrotron Oscillator



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 ranging from 10 kW to 1.3 MW.

The VGT-8110 gyrotron provides up to 1 MW of output power at 110 GHz for electron cyclotron heating and current drive in fusion plasmas.

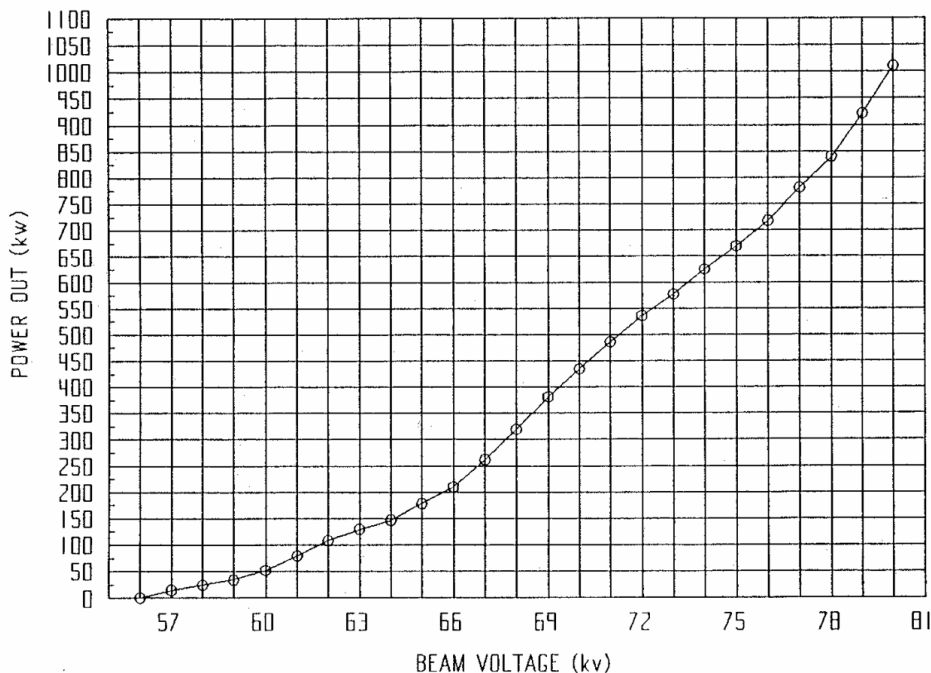


For additional information on gyrotrons, other CPI products, or a copy of our catalog-on-disk, please contact:  
CPI Microwave Power Products, 811 Hansen Way, Palo Alto, CA 94303-0750  
Telephone: 650-846-3172, Fax: 650-856-0705, Email: [marketing@cpil.com](mailto:marketing@cpil.com)

# VGT-8110 Gyrotron Oscillator



POWER OUTPUT VS. BEAM VOLTAGE  
FOR VGT-8110 S/N 101  
TESTED IN CRYOMAGNETICS VYW-8011B ON 10/26/99 *PC*



MAIN MAGNET 1 CURRENT = 36.50 A  
MAIN MAGNET 2 CURRENT = 37.70 A  
GUN MAGNET CURRENT = 7.40 A (BUCKING)

BEAM VOLTAGE = VARIED  
BEAM CURRENT = 39.7 A @  $v_b = 80$  kV  
DIFFERENTIAL PULSE LENGTH = 1.0 ms

## Features

- High Power, Long-Pulse
- Gaussian Output Beam
- CVD Diamond Output Window
- Diode Electron Gun
- Cryogen-Free Superconducting Magnet

## Typical Operating Parameters

Power Output	1000 kW
Pulse Length	10 sec
Beam Voltage	80 kV
Beam Current	40 A
Frequency	110±0.2 GHz
Efficiency	31%
Output Mode	TEM <sub>00</sub>

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