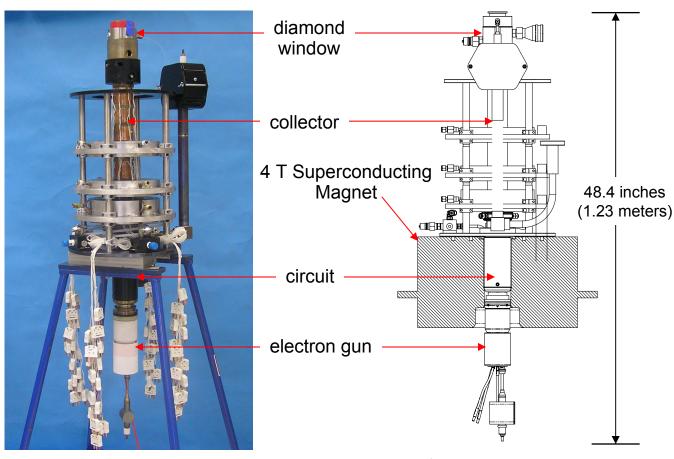
VGB-8193 Gyrotron Amplifier



CPI gyrotron amplifiers are the only commercially available W-band amplifiers with high peak and average output powers. The VGB-8193, a five-section gyro-amplifier, can be operated at peak output powers up to 55 kW and average output powers up to 5.5 kW. The full-width-half-maximum bandwidth is 1.6 GHz and the saturated gain is 33 dB. A CVD diamond window, developed for use on high-power gyrotron oscillators, has been adapted for the amplifier. The VGB-8193 is available with a refrigerator-cooled 4 Telsa superconducting magnet which does not require liquid cryogens.



Features

- High Power
- Broad Bandwidth
- High Gain
- Axial Output
- CVD Diamond Output Window
- Cryogen-Free Superconducting Magnet

Typical Operating Parameters

Peak Output Power Avg. Output Power	55 kW 5.5 kW
Center Frequency	92-98 GHz
Bandwidth (-3 dB)	1600 MHz
Gain	33 dB
Beam Voltage	65 kV
Mod-Anode Voltage	17 kV
Beam Current	6 A
Output Mode	TE ₀₁

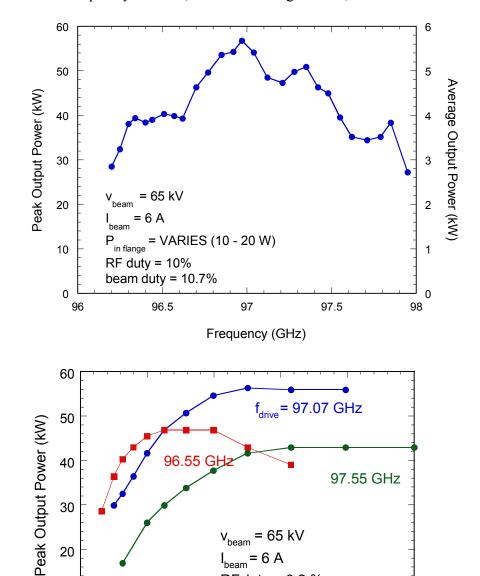
For additional information on gyrotrons, other CPI products, or a copy of our catalog-on-disk, please contact: CPI Microwave Power Products, 811 Hansen Way, Palo Alto, CA 94303-0750 Telephone: 650-846-3172, Fax: 650-856-0705, Email: marketing@cpii.com

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VGB-8193 Gyrotron Amplifier



Measured Data for VGB-8193C Serial Number 001 Center Frequency 97 GHz, Cathode Voltage 65 kV, Beam Current 6 A



10 20 30 40
Peak Input Power at Gyrotron Flange (W)

RF duty = 0.2 %

beam duty = 1.0%

50

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