

Abstract Submitted
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Installation and Testing of a 110 GHz Gyrotron With Depressed Collector Potential on the DIII-D Tokamak¹ JOHN LOHR, I.A. GORELOV, H.J. GRUNLOH, K. KAJIWARA, C. PAWLEY, D. PONCE, J.F. TOOKER, General Atomics, T.S. CHU, M. BLANK, P. BORCHARD, P. CAHALAN, S. CAUFFMAN, K. FELCH, Communications and Power Industries — A single stage depressed collector gyrotron has been installed for testing on the DIII-D tokamak. The tube has operated at the 1.25 MW level at 44% efficiency for short pulses and at 0.5 MW for 10 s pulses at CPI and now is being tested to full parameters at DIII-D. A two-stage mode conversion dummy load has been built to handle the higher ultimate power from this gyrotron for pulses up to 5 s in length. Modifications to the high voltage power supply system were required to provide 30 kV depression and sequencing of the application of the voltages.

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