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**Testing update on gyrotrons for electron cyclotron heating applications** KEVIN FELCH, MONICA BLANK, PHILIPP BORCHARD, STEPHEN CAUFFMAN, Communications and Power Industries, GYROTRON ENGINEERING TEAM TEAM — Tests were recently performed on CPI gyrotrons at frequencies of 117.5 GHz and 140 GHz. At 117.5 GHz, output power levels of 1.67 MW were obtained under short-pulse conditions and long-pulse tests with pulse durations of 1-10 s have been performed with power levels up to 700 kW. The 117.5 GHz gyrotron was shipped to General Atomics where further long-pulse testing to higher power levels will be carried out with the goal of demonstrating power levels up to 1.5 MW for 5-second pulses. At 140 GHz, a CPI gyrotron was recently tested up to 810 kW output power for 30-minute pulses at W7-X in Greifswald, Germany. Design details and the latest test results for the two gyrotrons are presented.

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