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Power Accountability with 1 MW 110 GHz Gyrotron System on the DIII–D Tokamak[1] DAQING ZHANG, *Academia Sinica*, JOHN LOHR, J.W. TOOKER, DAN PONCE, R.W. CALLIS, *General Atomics* — A new gyrotron system (110 GHz, 1 MW, 2 sec) has been built for the DIII–D tokamak. Before the ECH physics experiments were carried out on DIII–D, the power produced by the gyrotron was measured carefully as well as the power absorbed by parts of the system such as in the gyrotron window, mirror optics unit, miter bends, and dummy loads, for different pulse durations. The maximum output power achieved up to now is 885 kW for 500 msec pulse length. The gyrotron generation efficiency is 37%, very close to the optimum operation parameters, and the whole system's efficiency is 29%. The output mode and frequency of the gyrotron was also measured. Detailed experimental results will be presented.

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