

Testing Needs for ITER ECH Transmission Line Components*

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The performance requirement of 1 (possibly 2) MW cw at 170 GHz for ITER Electron Cyclotron Heating and Current Drive transmission line components is much more demanding than the 1 MW 10 s performance, generally at 110 GHz, that has been demonstrated on present devices. The high ITER heat loads will require enhanced cooling and, for some components, new or modified designs. Before component designs are finalized, testing at ITER conditions is strongly advisable. This paper will identify those components most in need of full power cw testing before designs are finalized and the large number of components are fabricated.

*Work supported by General Atomics IR&D.