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The first test results of the gyrotron and waveguide path of the T-15MD tokamak in a long-pulse operation

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The T-15MD tokamak is equipped with a gyrotron set-up, which currently includes one gyrotron with an operating output frequency of 82.6 GHz and a power of 1 MW. The length of the waveguide path from the gyrotron to the tokamak is 37 m. A significant result obtained earlier was the measurement of HF-radiation power using a small calorimetry load (0.95 MW at a pulse duration of 125 ms). This paper presents the results of the first joint tests of a gyrotron and a waveguide path for a dummy load in a long pulse operation from a high-voltage power supply "Victoria". A pulse duration of 9.4 s was achieved. The estimated microwave radiation power is 0.85 MW.

Keywords: gyrotron, T-15MD tokamak, dummy load, waveguide path.

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