

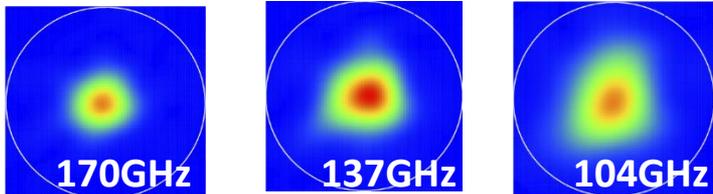
Prototype Development of the ITER EC System with 170GHz Gyrotron



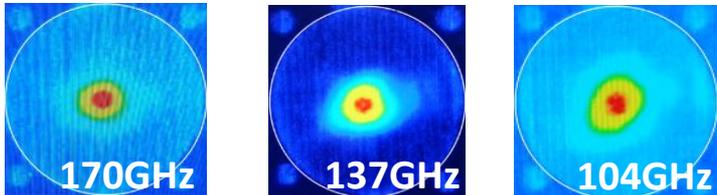
Multi Frequency Gyrotron

- Multi frequency (**170 / 137 / 104 GHz**) operation with **1 MW output**
 - Multi frequency RF transmission in ITER relevant Transmission Line **for 3 frequencies.**

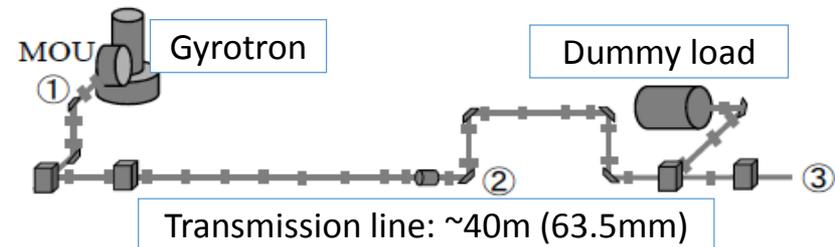
Calculation



Experiment



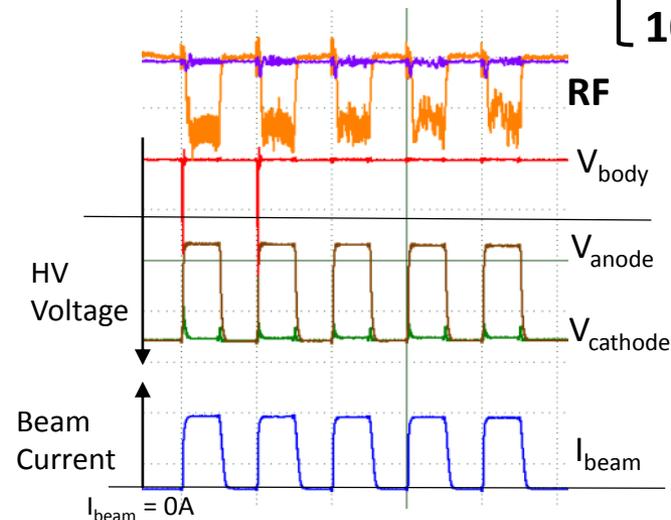
Output beam profiles of multi frequency gyrotron



ITER relevant Transmission Line

Transmission efficiency

170GHz : 91%
 137GHz : 90%
 104GHz : 85%



Waveform of 5 kHz power modulation at 170 GHz

ITER EC System Prototype

- **5kHz power modulation of gyrotron was succeeded with ITER EC system prototype.**