

# **Millimeter Wave Polarimeter**

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## ***Abstract***

We have built a millimeter wave polarimeter which measures wave polarization parameters in a vacuum: the circularity, the polarization axis, and the field spin direction. This paper describes the principle of operation, the design method, and the application results. We have been using this polarimeter for characterizing the 1 MW-level electron-cyclotron plasma heating system at 110 GHz for the DIII-D tokamak.