# Abstracts

## The Focused Fabry-Perot Resonator and its Application To Plasma Diagnostics

*R.I. Primich and R.A. Hayami. "The Focused Fabry-Perot Resonator and its Application To Plasma Diagnostics." 1963 PTGMTT National Symposium Program and Digest 63.1 (1963 [MWSYM]): 157-162.*

The planar Fabry-Perot resonator is a well-known device, both in the optical region and at millimeter wavelengths. Culshaw has demonstrated the excellent performance that may be obtained in the millimeter wavelength band and has indicated that such resonators would be very attractive at even shorter wavelengths. Several years ago one of the authors proposed a focused Fabry-Perot resonator in which the plate would be spherical in shape and would be located along constant phase contours in the field of a focused antenna. Attempts to operate such a device failed, probably due to the fact that the very high mechanical and control requirements were not met. Culshaw quite independently, has discussed a similar focused resonator, but apart from indicating that it might resonate, no estimated performance figures were given. More recently, he has published a detailed theoretical analysis of the planar resonator and has shown that it is exactly equivalent to the focused resonator. The authors have recently successfully operated a focused resonator, and the details of this work will be described in this paper.

❑ Return to main document.