

# Abstracts

## Mode Analytical Study of Cylindrical Cavity Power Combiners

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*K. Fukui and S. Nogi. "Mode Analytical Study of Cylindrical Cavity Power Combiners." 1986 Transactions on Microwave Theory and Techniques 34.9 (Sep. 1986 [T-MTT]): 943-951.*

A mode analytical treatment of cylindrical cavity power combiners is presented to discuss power-combining capability and the method for attaining stable desired mode operation. Both the conventional coaxial-probe output type and the window output type are treated, based on a circuit model which can support TM/sub 010/, TM/sub 020/, and TM/sub m10/ modes ( $1 \leq m \leq N$ ,  $N$  being the number of active devices employed). It is shown that adoption of the window output largely facilitates undesired mode suppression and also enables power combining in some azimuthal modes.

 [Return to main document.](#)