

# Abstracts

## Insertion Loss of 3-Port Circulator with One Port Terminated in Variable Short Circuit (Short Papers)

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*J. Helszajn, G.P. Riblet and J.R. Mather. "Insertion Loss of 3-Port Circulator with One Port Terminated in Variable Short Circuit (Short Papers)." 1975 Transactions on Microwave Theory and Techniques 23.11 (Nov. 1975 [T-MTT]): 926-927.*

The insertion loss between ports 1 and 3 of a 3-port circulator with port 2 terminated in a short circuit varies about twice the single path loss. The purpose is to give approximate simple upper and lower bounds for this loss in terms of the single path insertion loss of the junction. One application of this arrangement is encountered in the connection of a filter and equalizer by a single circulator. The final result indicates that, in the absence of circuit losses, the double path loss varies between one and three times the single path loss.

 [Return to main document.](#)