

# Abstracts

## Low Loss, 3mm Junction Circulator

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*H.C. Okean and L.J. Steffek. "Low Loss, 3mm Junction Circulator." 1973 G-MTT International Microwave Symposium Digest of Technical Papers 73.1 (1973 [MWSYM]): 80-82.*

This paper describes the design and performance of a 3mm H-plane waveguide junction circulator which exhibited, with appropriate partial height ferrite and transformer dimensions, 0.5 to 1 dB insertion loss, 23 to 30 dB maximum isolation and 3 to 5 GHz 20 dB isolation bandwidth over the 80-100 GHz frequency range. Application of the resonant mode theory of H-plane waveguide circulator operation indicated that said circulator resonated in the axial "compact turnstile" mode, with strong correlation between theoretical and measured center frequencies.

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