

# Abstracts

## A novel Ka-band 1 to 8 power divider/combiner

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*Xin Jiang, S. Ortiz and A. Mortazawi. "A novel Ka-band 1 to 8 power divider/combiner." 2001 MTT-S International Microwave Symposium Digest 01.1 (2001 Vol. I [MWSYM]): 35-38 vol. 1.*

In this paper, a 1-to-8 traveling wave power divider/combiner design at Ka-band is presented. This power divider/combiner is composed of eight units coupling power from rectangular waveguide to microstrip lines. Coupling is achieved through longitudinal slots in the broad wall of the waveguide. Shorting posts inside the waveguide are used to adjust the coupling values. Experiments on the eight-way passive divider/combiner back-to-back design demonstrates a minimum overall insertion loss of 1.8 dB at 32.5 GHz with a 3 dB bandwidth of 15%.

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