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DESIGN OF RADIAL POWER DIVIDER/COMBINER IN KA BAND

**Abstract**

In this paper, a 5-way and an 8-way radial divider/combiner with radial waveguide in ka band is put forward. Simulation results show that return loss is below -20 dB and insertion loss is better than -0.3 dB for a 5-way power divider/combiner including waveguide/microstrip transitions and microstrip/waveguide transitions from 29.25 GHz to 40 GHz and return loss is below -20dB and insertion loss is better than -0.3dB for an 8-way power divider/combiner. Therefore, it can be designed to realize the non-binary structure.