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Title

Rectangular waveguide two-way power combiner with center frequency of 0.225 THz Source

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Abstract

A rectangular waveguide two-way power combiner with the center frequency of 0. 225 THz is designed. The distribution of electric field and the efficiency of the combiner are investigated by numerical calculation and simulation. The numerical calculation shows that the combined peak electric field decreases as the phase difference of the two input waves increases. The position of the combined peak electric field moves away from the input port with the increase of the space between the two input waveguides. The results of simulation are in agreement with those of the numerical calculation. The simulation shows that the efficiency of the combiner is higher than 90% and the bandwidth is 10 GHz, when the phase difference between the two input waves is less than 35degree. (9 References).