Abstracts

A multi-element 150/300 GHz spatial power dividing/combining frequency doubler

B. Schumann, M. Hoft and R. Judaschke. "A multi-element 150/300 GHz spatial power dividing/combining frequency doubler." 2002 MTT-S International Microwave Symposium Digest 02.3 (2002 Vol. III [MWSYM]): 1539-1542 vol.3.

A five-element frequency doubler at 300 GHz in a quasi-optical spatial power dividing/combining circuitry has been investigated. The individual frequency doublers are realized with GaAs-Schottky-diodes in waveguide technique with 4% efficiency. Holography is applied to achieve efficient power transfer to/from the active devices. Preliminary measurements are in good agreement with the expected system performance.

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