Abstracts

A 110 GHz Ozone Radiometer with a Cryogenically Cooled Planar Schottky Mixer

O. Koistinen, H. Valmu, A. Raisanen, V. Vdovin, Y. Dryagin and I. Lapkin. "A 110 GHz Ozone Radiometer with a Cryogenically Cooled Planar Schottky Mixer." 1993 MTT-S International Microwave Symposium Digest 93.2 (1993 Vol. II [MWSYM]): 775-778.

A total power radiometer is presented for monitoring of stratospheric ozone spectral line at 110 GHz. Special features, such as a cooled planar Schottky mixer as the front end and efficient reduction of standing waves in the quasi-optics, shall be discussed in detail. The noise temperature of the receiver is 500 K (SSB), and total bandwidth of the receiver is 1 GHz. A dual acousto-optical spectrometer is used for the signal detection.

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