

Abstracts

A 22 GHz MIC Active Receiver / Radiometer

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A 22 GHz microwave integrated circuit active receiver is built and tested at 22 GHz. The receiver consists of a planar antenna coupled to a 6-stage MESFET amplifier and followed by a planar band-pass filter and a planar Schottky-diode detector. The active receiver can be used as a simple 22 GHz planar radiometer for the water-vapor line. The measured performance shows a peak gain centered at 22.5 GHz with a 3-dB bandwidth of 1.8 GHz.

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