

Abstracts

A Broadband Low Noise SIS Receiver for Submillimeter Astronomy (1988 Vol. I [MWSYM])

T.H. Buttgenbach, R.E. Miller, M.J. Wengler, D.M. Watson and T.G. Phillips. "A Broadband Low Noise SIS Receiver for Submillimeter Astronomy (1988 Vol. I [MWSYM])." 1988 MTT-S International Microwave Symposium Digest 88.1 (1988 Vol. I [MWSYM]): 469-472.

A quasioptical heterodyne receiver using a Pb alloy superconductor-insulator-superconductor (SIS) tunnel junction as the detector and a planar logarithmic spiral antenna for the RF coupling is described. Noise measurements were made at frequencies between 115 GHz and 761 GHz, yielding noise temperatures (DSB) ranging from 33 K to 1100 K.

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