

Abstracts

Cryogenic All Solid-State Millimeter-Wave Receivers for Airborne Radiometry (1983 [MWSYM])

B. Vowinkel, K. Gruner, H. Suss and W. Reinert. "Cryogenic All Solid-State Millimeter-Wave Receivers for Airborne Radiometry (1983 [MWSYM])." 1983 MTT-S International Microwave Symposium Digest 83.1 (1983 [MWSYM]): 566-568.

Cryogenic receiver modules for 90 and 140 GHz have been developed that are part of an airborne imaging system. They consist of Schottky-barrier mixers followed by GaAs-FET IF amplifiers. The DSB receiver noise temperatures are 210 K for the 90 GHz and 250 K for the 140 GHz system. The instantaneous bandwidth is 2.5 GHz for both front-ends. Results of some flight tests are presented.

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