Abstracts

A High-Resolution Total-Power Radiometer Using SAW Compressive Receivers

R.D. Towns, J.J. Chambers, R.F. Humphryes and C.I. Smith. "A High-Resolution Total-Power Radiometer Using SAW Compressive Receivers." 1983 MTT-S International Microwave Symposium Digest 83.1 (1983 [MWSYM]): 469-471.

A total-power radiometer is being developed to measure parameters of the atmosphere from a Spacelab platform. Channelization for the high-resolution data is implemented by SAW compressive receivers. Two resolution levels are obtained from the same SAW device: twenty-five 2-MHz channels are defined across a 50-MHz instantaneous bandwidth; thirty 100-KHz channels are taken from a 3-MHz window in the center of the larger band. This paper describes the realization of the radiometer using RAC devices. A description is also included of a prototype compressive receiver that has been delivered to the experimenters for the generation of performance data.

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