

Session EE

Receiver Components

Chairman:

E. W. Rezek
TRW
Torrance, CA

Exciting new developments have been achieved in the general area of low noise receiver technology. In this session we cover both the characterization of certain new receiver components as well as highlight the performance of selected receiver applications. The cryogenic performance of HEMT LNAs is presented; these devices are replacements for maser amplifiers for deep space communication applications at Ka-band. A comprehensive picture of FET and HEMT noise properties by analysis of microwave noise characteristics is presented. Low noise and high output power performance of InP-based HEMT LNAs. In 7–11 GHz operation is summarized. Recent progress on the use of GaAs MESFET downconverters for commercial digital handheld telephone applications is presented. Automated, planar microwave interconnect technology is used to reduce the size and weight of microwave delay lines at 3–5 GHz. Finally, we present the novel use of a VCO-based swept local oscillator for broadband compressive receiver applications.

3:30 p.m.–5:00 p.m., Wednesday, June 16, 1993
Room 218/219

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