

## Simulation & Modelling of a Heterojunction Bipolar Transistor Mixer

---

*B.A. Xavier and C.S. Aitchison. "Simulation & Modelling of a Heterojunction Bipolar Transistor Mixer." 1992 MTT-S International Microwave Symposium Digest 92.1 (1992 Vol. I [MWSYM]): 333-336.*

The first low power HBT mixer intended for use in mobile communications equipment is described. Measured conversion gain and intermodulation performance superior to active MESFET mixers is reported. An HBT model developed for mixer simulation is presented and accompanying predictions are given along with an analytical expression for predicting conversion gain.

 [Return to main document.](#)