Abstracts

24-27 GHz dielectrically stabilized oscillators with excellent phase noise properties utilizing InP/InGaAs HBTs

U. Guttich, H. Shin, U. Erben, C. Gaessler and H. Leier. "24-27 GHz dielectrically stabilized oscillators with excellent phase noise properties utilizing InP/InGaAs HBTs." 1999 MTT-S International Microwave Symposium Digest 99.2 (1999 Vol. II [MWSYM]): 729-732 vol.2.

We report on the design, fabrication, and RF performances of 24-27 GHz dielectric resonator oscillators (DROs) using InP/InGaAs HBTs. The employed HBT devices yield f/sub T/ values of 70 GHz and f/sub max/ values of up to 180 GHz, respectively. The measured phase noise of -107 dBc at 100 kHz offset is significantly lower than that of comparable DROs using GaAs based HBTs. To our knowledge, this is the first demonstration of phase noise results on InP/InGaAs HBT DROs.

❑ Return to main document.