Session HH

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Advances in Microwave Oscillators Technology

Chairman:

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This session presents six papers on oscillator and oscillator related technologies. The first paper presents results on a fundamental YIG tuned Silicon Bipolar transistor oscillator operating over 2-22 GHz, the widest bandwidth reported to date.

The next paper describes a novel circuit for a phase-locked loop that performs both phase and frequency detection to extend pull-in range and eliminate the need for a search circuit.

The third paper discusses a very novel 4 GHz low noise dielectric resonator oscillator that achieves a 8 times reduction in size by combining a Ku band oscillator and a 4:1 frequency divider.

The fourth paper addresses a commercial application for microwave technology-motion sensing in doppler radar application. The author presents results on a 23 GHz MESFET DRO which also acts as a self-oscillating mixer.

The next paper describes a unique technique to pulse prime bias-gated DROs to reduce settling time.

The last paper in the session describes an 8.8 to 17.6 GHz VCO with active dual gate buffer amplifier/splitter for a wide range of output power control.

10:00 a.m.–11:30 a.m., Thursday, June 4, 1992
Ruidoso/San Miguel