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ADVANCES IN FET AMPLIFIERS

Chairman: Richard Van Wagoner—Department of Defense

Session Abstract: FET amplifier noise and bandwidth performance continues to improve. In this session we see measured performance of a 1 to 40 GHz bandwidth distributed amplifier with good gain flatness. If one wants ultra low noise performance, a paper is presented showing a unique distributed 2–18 GHz amplifier with 2.95 dB average noise figure. Extremely low narrow-band noise is discussed in yet another paper which presents a 95°K maximum noise temperature at 42 GHz which was achieved using cryogenically cooled HEMT's. The two remaining papers in this session present interesting amplifier design techniques. In one, an advanced multilayer thin-film technology is used to fabricate a 26–40 GHz balanced amplifier. The final paper presents a third harmonic peaking class-F amplifier circuit technique for improved efficiency at X-band.

8:30 a.m.–10:00 a.m., Thursday, June 15, 1989
Terrace Theater