

# Abstracts

## Microstrip Active Antennas and Arrays

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*K.A. Hummer and K. Chang. "Microstrip Active Antennas and Arrays." 1988 MTT-S International Microwave Symposium Digest 88.2 (1988 Vol. II [MWSYM]): 963-966.*

Microstrip active antennas and arrays have been designed at X-band using patch antennas and Gunn diodes. Injection locking experiments were carried out to achieve frequency coherency and to calculate the circuit Q-factor. Over 9 percent electronic tuning range has been achieved for the single active patch element. The power outputs from two elements have been successfully combined in free space. The advantages of low cost and wide bandwidth should offer many applications.

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