

SESSION 13: SYSTEMS TOPICS

SESSION CHAIRMAN: J. B. HORTON

TRW
REDONDO BEACH, CA

Advances in microwave systems are often related to specific improvements that lead to added system performance. Examples of such improvements in communication systems are greater power output, lower receiver noise figure, etc., that contribute to greater link margins. These technologies are covered in other sessions and do not need to be discussed here. However, there are more subtle topics that can affect the system's performance.

Our second session in systems deals with topics related to specific system improvements. The first paper deals with a unique technique for feeding a reactively steered null for a receive array. The work reported deals with a 4 GHz array, but the techniques discussed can be extended to higher frequencies. This paper is followed by an analysis of the RF spectrum of a microwave cavity oscillator. Measured data are presented to verify the technique. The third paper deals with a technique for extending the linearity of a 12 GHz TWTA. Dual-gate FETs are used in this technique.