

Session D

(Special Session)



Microwave Power Modules (MPM)

Chairman:

Robert K. Parker

Naval Research Laboratory
Washington, DC

Phased arrays in radar and electronic warfare systems place stringent requirements on the level and characteristics of microwave power delivered to each radiating element. Peak and continuous power, bandwidth, spectral purity and other performance needs stress the capability of current amplifier technology to meet these system requirements. The microwave power module (MPM) addresses these needs by integrating a low-gain vacuum power booster (traveling wave tube) and a high-gain solid-state driver (MMIC) with their requisite power supplies to obtain a highly efficient low-noise amplifier module.

The inherent efficiency of the TWT in the output stage of the module combined with the low-noise performance of the solid-state MMIC produces a unit with the breakthrough performance and packaging required for many critical system designs, in which the demand for enhanced efficiency, reduced size and weight, and lower cost are paramount. By enabling a new flexibility in system architecture, the MPM is expected to benefit systems as diverse as jammers, decoys, active missile seekers, phased-array radars and satellite communications.

**11:00 a.m.–12:00 p.m., Tuesday, June 15, 1993
Room 202**