# Abstracts

## An EHF Backplate Design for Airborne Active Phased Array Antennas

*H. Wong, S.S. Chang, D.C.D. Chang, G.S. Bretana, G.A. Hill, T.Q. Ho and M.N. Wong. "An EHF Backplate Design for Airborne Active Phased Array Antennas." 1991 MTT-S International Microwave Symposium Digest 91.3 (1991 Vol. III [MWSYM]): 1253-1256.*

An array backplate is an essential part of millimeter-wave active phased array antennas. It is the key system that distributes DC, command logic, and EHF signals to the thousands of radiating elements. This paper describes an EHF array backplate design for use in airborne active phased array antennas. The backplate utilizes a multilayer substrate and reduced waveguide for signal routing while a counterflow air cooling technique is used to cool the GaAs MMIC active devices. The integrated design is characterized by temperature coefficient matched materials to insure a rigid, thermally stable structure.

❑ Return to main document.