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FILTERS AND MULTIPLEXERS I

Chairman: Jerry Fiedziuszko—Ford Aerospace

Session Abstract: Common theme of this session is utilization of printed type circuits to realize sophisticated filters and multiplexers. The first two papers describe novel configurations of microstrip band pass filters. In a paper "Commensurate—Line, Microstrip Band-Pass Filters" Moshe Gat describes wide bandwidth microstrip filters with remarkable performance. Careful computer aided design resulted in excellent correlation between test and simulated data. An accompanying paper by Alfy Riddle "High Performance Parallel Coupled Microstrip Filters" describes a configuration which significantly improves the performance of previous parallel coupled filter structures. Excellent stop band performance and correlation between test and theory are shown.

Fin-line structures are the subject of the next two papers. In their paper "Rigorous Design of Septate E-Plane Multiplexers with Printed Circuit Elements" J. Dittloff and F. Arndt propose a novel design of a millimeter wave multiplexer utilizing the wide-band properties of E-plane n-furcated power dividers. The technique leads to very compact multiplexers. A similar concept is presented in an excellent paper "Computer Aided Design of Parallel-Connected Millimeter Wave Diplexers/Multiplexers" by R. Vahldieck, B. de la Filolie. Finally, an exceptionally wide band tunable band-stop filter is described by D. Auffray and J. L. Lacombe. The MIC filter exhibited tuning from 6.5 GHz to 10 GHz and performed according to theoretical expectations.

8:30 am–10:00 am, May 26, 1988
Jacob Javits Convention Center, Hall 1E
Room 2