



IEEE TRANSACTIONS ON MICROWAVE THEORY AND TECHNIQUES

DECEMBER 1978

VOLUME MTT-26

NUMBER 12

A PUBLICATION OF THE IEEE MICROWAVE THEORY AND TECHNIQUES SOCIETY



1978 Symposium Issue

Editor's Overview	<i>W. Steenaart</i>	926
The 1978 International Microwave Symposium	<i>W. Steenaart and R. VanKoughnett</i>	927
1977 MTT Awards	<i>G. P. Rodrigue</i>	932

PAPERS

Cryogenic Millimeter-Wave Receiver Using Molecular Beam Epitaxy Diodes	<i>R. A. Linke, M. V. Schneider, and A. Y. Cho</i>	935
Noise and Transfer Properties of Harmonically Synchronized Oscillators	<i>R. Knöchel and K. Schünemann</i>	939
1.6-Gb/s 16-Level Superposed APSK Modem with Baseband Signal-Processing Coherent Demodulator	<i>M. Washio, T. Shimamura, N. Komiyama, and Y. Takimoto</i>	945
Calibrating the Six-Port Reflectometer by Means of Sliding Terminations	<i>G. F. Engen</i>	951
Computer-Aided Filter Alignment and Diagnosis	<i>H. L. Thal, Jr.</i>	958
New Results in Network Simulation, Sensitivity, and Tolerance Analysis for Cascaded Structures	<i>J. W. Bandler, M. R. M. Rizk, and H. L. Abdel-Malek</i>	963
Exact Calculation of the Uncertainty on the Input Reflection Coefficient of Arbitrary Two Ports Due to Mismatches and Arbitrary Reference Planes	<i>H. Tromp</i>	973
An Approximate Dynamic Spatial Green's Function for Microstriplines	<i>Y. L. Chow and I. N. El-Behery</i>	978
Generalized Spectral Domain Method for Multiconductor Printed Lines and Its Application to Tunable Suspended Microstrips	<i>T. Itoh</i>	983
Simulation Study of Electronically Scannable Antennas and Tunable Filters Integrated in a Quasi-Planar Dielectric Waveguide	<i>T. Itoh and A. S. Hebert</i>	987
Measurements of Excitation Condition and Quantitative Mode Analysis in Optical Fibers	<i>H. Shigesawa, T. Matsuo, and K. Takiyama</i>	992
Groove- and <i>H</i> -Waveguide Design and Characteristics at Short Millimetric Wavelengths	<i>D. J. Harris, K. W. Lee, and J. M. Reeves</i>	998
A Simple Method for Analyzing Fin-Line Structures	<i>A. M. K. Saad and K. Schünemann</i>	1002
An <i>X</i> -Band Balanced Dynamic Fin-Line Mixer	<i>G. Begemann</i>	1007
Nonreciprocal Remanence Ferrite Phase Shifters Using the Grooved Waveguide	<i>A. Mizobuchi and H. Kurebayashi</i>	1012
A Technique for Predicting Large-Signal Performance of a GaAs MESFET	<i>H. A. Willing, C. Rauscher, and P. de Santis</i>	1017
Surface-Oriented Transferred-Electron Devices	<i>M. S. Shur and L. F. Eastman</i>	1023
GaAs TUNNETT Diodes	<i>J. I. Nishizawa, K. Motoya, and Y. Okuno</i>	1029
YIG Resonator Circuit with Isolator Property and Its Application to a Gunn Diode Oscillator	<i>F. Okada, K. Ohwi, and Y. Yokochi</i>	1035
Reflection of Magnetostatic Forward Volume Waves by a Shallow-Grooved Grating on a YIG Film	<i>J. P. Parekh and H. S. Tuan</i>	1039

CONTRIBUTORS	1045
--------------------	------

1978 INDEX	Follows page 1051
------------------	-------------------